Socio-Economic Conditions of Drought Prone Areas in Uttar Pradesh

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CENTRAL WATER COMMISSION
NEW DELHI

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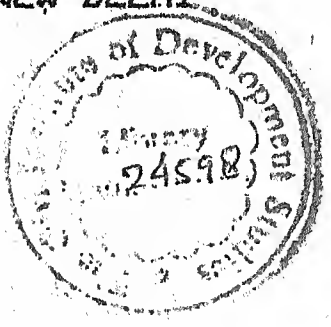

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PREFACE

THIS is the second part of the Bench Mark Studies of Socio-Economic Conditions of Drought Prone Areas of Uttar Pradesh and Rajasthan. The study is based in primary data collected from the eighteen villages belonging to Allahabad and Hamirpur Districts of the state of Uttar Pradesh. The field surveys were conducted in 1981-82. Such undue long delay was due to a number of unavoidable reasons.

WE wish to thank a host of persons engaged in the collection of primary data. Our thanks are due to Dr.B.K. Joshi, the Director of the Institute.

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CHAPTER I

INTRODUCTION

Before the start of Drought Prone Area Programme (DPAP), the Rural Works Programme was launched in India during 1970-71 with an objective to create rural employment through construction of productive assets like irrigation, afforestation and rural roads. The major operational areas of the programme in Uttar Pradesh consisted of Mirzapur, Allahabad, Varanasi, Banda, Jalaun and Hamirpur districts. But such employment-oriented programme could not yield fruits large enough to overcome the problems of development of drought-prone areas. Therefore, during the period of the Fifth Plan, there was a shift in approach to Integrated Area Development with major emphasis on identification of core sectors, availability of resource potentials, local needs and linkages between the core sectors for optimum use of the resources. Within this broad framework, a comprehensive drought-prone areas programme was introduced in India during 1974-75. The coverage of this programme in Uttar Pradesh confined to 40 blocks of the six chronically drought affected districts, i.e., Mirzapur, Allahabad, Varanasi, Jalaun, Hamirpur and Banda.

1.1 Contents of the Programme

Since its inception, the main objective of DPAP in the state was to bring about an improvement in the socio-economic

status of small and marginal farmers and landless labourers through securing the optimum utilisation of land, water, livestock and manpower resources, increasing income of the weaker sections and by reducing severity of drought in the long run. The major thrust of the effort was to restore a proper ecological balance in drought-prone areas through enforcement of the following key elements of the programme.

(i) Development and management of water resources.

(ii) Soil and moisture conservation measures.

(iii) Afforestation with special emphasis on social and farm forestry.

(iv) Development of pasture lands and range managements in conjunction with development of sheep husbandry.

(v) Livestock and dairy development.

(vi) Restructuring of cropping pattern and changes in agronomic practices.

(vii) Development of Subsidiary Occupations.

1.2 Salient Features of Drought-Prone Area in U.P.

Out of the six drought-prone districts of the state, Allahabad, Mirzapur and Varanasi belong to the Eastern region and Banda, Hamirpur and Jalaun fall in the Bundelkhand region. In all, 40 blocks and 6174 villages of all these districts were selected for implementation of the programme. Thus nearby fifty per cent of the total geographical area of these districts was covered under DPAP. But in absolute terms, the area under DPAP was larger in Eastern region than that in Bundelkhand. Within the DPAP districts of Eastern region, this coverage was skewed with larger concentration of drought-prone

areas in Mirzapur, whereas its corresponding coverage is almost evenly distributed in the drought prone districts of Bundelkhand region.

There was some reshuffle in the coverage of drought-prone districts in the state during the early eighties. Varanasi and Allahabad were excluded from the DPAP during 1981-82 and 1983-84 respectively. However, some blocks of Sitapur, Lakhimpur Kheri, Behraich, Gonda, Jhansi and Lalitpur were brought under implementation of the programme during 1983-84. Thus, at present DPAP is being carried out in 55 blocks of 10 districts in the state. But the present study of socio-economic conditions of drought-prone areas is based on the geographical area of initial coverage only.

Drought-prone areas are mainly located in southern part of the state bordering with Madhya Pradesh except the eastern part of Varanasi bordering with Bihar. The red sandy soils predominate in Jalaun, Banda and Hamirpur, whereas the red and yellow soils are mostly found in Allahabad, Varanasi and Mirzapur districts. These soils generally contain potash and lime in sufficient quantity but lack in nitrogen, phospheres and humus and are prone to soil erosion. The area is characterised with large variations in temperature. The rainfall is irregular and erratic in nature and not enough to sustain agriculture. The normal annual rainfall in the whole of the drought-prone areas is recorded to be below 500 millimetres excepting some portions of Varanasi and Allahabad where sometimes it goes slightly above the normal. A frequent occurrance of drought is usually experienced in all the

drought-prone areas of the state.

The drought-prone areas are sparsely populated. The density of population in these areas is found to be 161 against 377 for whole of the state. The sex-ratio is calculated at 890. The percentage of literate in total population increased by 4.85 per cent in these areas during 1971-81 as against the increase by 5.52 per cent in literate population of the non-drought prone districts.

According to 1981 Census, the proportion of workforce to the total population in drought-prone areas accounts for 41.75 per cent. However, the percentage of workers engaged in agriculture to total work force in the drought-prone areas works out to be as high as 86, witnessing agriculture as the main occupation of the people.

Agriculture is the main stay of life in drought-prone rural areas. The agrarian structure of land tenure on which agriculture depends, has the preponderance of marginal and small holdings in the state.

According to Agriculture Census 1977, the percentage of land holdings (no.) upto, two hectares to the total holdings in drought-prone districts is found to be comparatively low owing to the availability of relatively larger sizes of holdings. The proportion of net area sown to the total geographical area in drought-prone districts is considerably low. The pressure of population on land as reflected by the man-land ratio of 1.11 is significantly high. The intensity of cropping is also extremely at low level. The yield per hectre of important

crops is found to be considerably low because of the low adoption of improved agricultural practices in terms of low levels of consumption of fertilizers and use of pesticides, besides inadequacy of irrigation facilities. No doubt, the irrigation coverage is low, but the drought-prone areas still have a sizeable potentialities of both surface and ground water resources. Although a considerable increase in irrigation potential has taken place in drought prone areas during the previous decade, the rate of its utilisation has significantly gone down.

Besides, the infrastructural facilities primarily in terms of availability of power and roads are also deficient in drought-prone areas. With the result, flow of agricultural commodities particularly farm inputs is quite low and adoption of improved agricultural practices is still found to be at low pace. The areas are poorly endowed with mineral resources and industrial productivity is extremely low. Thus, underdevelopment resulting from low intensity of cropping, low productivity and inadequacy of infrastructural facilities is the major characteristic of the drought-prone areas.

1.3 Need And Objective

Realising the then on-going slow progress of drought prone areas, it was felt at the national level that although development and management of irrigation sources was one of the measures to be given a due consideration in DPAP, aspects of availability of ground and surface water resources and their proper planning for making water available to the farmers for

irrigation purposes could receive only partial treatment. Hence, there was need for formulation of a national plan to chalk out an appropriate and suitable strategy for proper management of ground and surface water resources and their maximum possible exploitation in agriculture for rural development in space as well as relating to the population living therein. Formulation of such strategy required not only determination of investment size and its allocation pattern but also identification of areas and population in order of priorities. This further required ascertaining future prospects of the people in the upliftment of their living conditions if facility of assured irrigation could be provided in drought-prone areas.

On the request of the Central Water Commission (CWC), New Delhi it was therefore deemed imperative to study the existing socio-economic conditions of the people of different sections in drought-prone areas of Uttar Pradesh. It was expected that this kind of study would provide not only baseline data and certain basic information for the drought-prone areas but also a realistic basis for evaluating the impact of various programmes from time to time. Besides, the study would also provide an insight into the conditions of drought-prone areas which would be useful while formulating development schemes. The main objective of the study is to examine the socio-economic conditions and characteristics of the rural people in the selected drought-prone districts of Uttar Pradesh, such as Allahabad and Hamirpur. The major aspects covered in the study are as follows:-

(a) Socio-demographic Features.

(b) Agrarian Structure and Basic Sources of Socio-economic Dependence.

(c) Impact of Drought and Availability of Drinking Water.

(d) Income & Expenditure and Disabilities.

Briefly speaking, the study attempts to examine the question of drought-proneness and water as the basic source of rural life at the given socio-economic background of the people in the districts.

1.4 Methodology

The two DPAP districts - Allahabad from East U.P. region and Hamirpur from Bundelknand region - were selected for detailed field investigations following the criteria of actual rainfal and its coefficient of variation and percentage of net irrigated area to net area sown. While selecting blocks and villages from the selected districts a single criterion of proportion of net irrigated area to net area sown was used. The three blocks were then selected from each district conforming to high, medium and low levels of irrigation and the same principle was applied in selecting three villages from each of the selected blocks. Further, a sample of 20 per cent households was drawn from each of the selected villages for the purposes of primary investigation. The total number of households in each village were classified according to the size of land holdings. Seven groups of land holding sizes were made and then selection of households was done from each group following the procedure of stratified random sampling.

However, in case of the households numbering less than 100 in a village, a minimum of twenty households were selected. The details of the coverage of the study are given below:-

Table 1 : Coverage of the Study

Sl. No.	Drought Prone Units	Universe	Sample	Percentage of 3 to 2
0	1	2	3	4
1.	Districts	6	2	33.33
2.	Blocks	40	6	15.00
3.	Villages	6174	18	0.29
4.	Households	3236	659	20.37

Source : Primary Investigation

The study makes use of the data/information collected from both the secondary as well as primary sources. Based on the secondary information, we have already finalised profiles of the selected two DPAP districts of Uttar Pradesh. This volume of the Bench Mark Study aims at portraying the socio-economic conditions of the drought-prone districts. By and large, the analysis is based on the data/information of primary investigations with sample households through structured questionnaire.

CHAPTER II

SOCIO-ECONOMIC CHARACTERISTICS OF THE SAMPLE DISTRICTS

The purpose of this chapter is to present some of the basic socio-economic profiles of the sample drought prone districts based on village data. There were nine villages selected from each of the sample districts for this purpose. The relevant data were collected on the basis of the structured village schedule in order to study some of the basic socio-economic characteristics of the sample districts.

2.1 Population and Occupation

According to 1981 Census, the villages selected for investigation in Allahabad and Hamirpur districts had 1008 and 1958 households in total respectively. These households had a population of 5659 in Allahabad and 12,726 in Hamirpur. The number of total workers were 2187 and 8624 in Allahabad and Hamirpur respectively. In this way, Allahabad and Hamirpur had about 39 per cent and 38 per cent of their respective total populations as workers (see Table 2.1). The occupational pattern of workforce in the villages of these two districts shows that most of them were agricultural workers, having some insignificant proportion of the workers in the household industry and services. The activity-wise distribution of workforce, thus, indicates agriculture as the basic source of

livelihood or income or employment for the people in these two drought-prone districts.

The average size of household had been 6 persons in Allahabad, 7 persons in Hamirpur and 6.20 persons in both districts taken together. The number of literates constituted 28 per cent and 22 per cent of the total population in Allahabad and Hamirpur respectively. The sex-ratio had been 833 in Allahabad and 871 in Hamirpur respectively. The Schedule Caste and Schedule Tribe population were 18.20 per cent and 18.37 per cent of the total population in Allahabad and Hamirpur respectively. In this way, these demographic and occupational characteristics of the sample villages present how the village economy of the districts in agriculturally preponderant with demographic load on the households there.

2.2 Pattern of Land Use

The village data on the characteristic pattern of land use show that the percentage of net area sown in the total reporting area was relatively lower (47.66 per cent) in Allahabad district there in Hamirpur, having 66.20 per cent. In this way, the net sown area in both districts taken together constituted 63.53 per cent of their total reporting area. The lower proportion of net area sown in Allahabad district was the result of a larger amount of unutilized area in the form of culturable waste and current fallow which constituted 30.08 per cent of its total reporting area as against 18.26 per cent of the reporting area in Hamirpur district and 20.29 per cent reporting area for both districts taken together. Moreover the

land not available for cultivation was also one of the factors to have lowered down the share of net area sown in Allahabad district because its proportion was relatively larger (19.90 per cent) in Allahabad district than that in Hamirpur district (7.53 per cent). The proportions of total reporting area under forest and pasture and other grazing land were found to be in both districts. However, the intensity of cropping was 123.42 in Allahabad but it was 106.02 in Hamirpur. An overall picture shows low intensity of cropping in the drought-prone districts, if compared with the state average of cropping intensity. In most cases, the village data on the pattern of land use do not present a significant level of variations if they are compared with the aggregative data pertaining to these districts as a whole.

2.3 Land Ownership

The skewed pattern of land distribution among rural households is a general feature of the state agrarian economy. The drought-prone districts are not an exception to this fact as Table 2.3 shows. The households without owned area constituted 23 per cent of the total households in Allahabad and 18 per cent of the total households in Hamirpur. In this way, the landless households constituted 19 per cent of the total households belonging to both districts taken together. The households with holding size of upto 2.5 acres coinstituted 46 per cent of the total households in Allahabad but owned 20 per cent of the net cultivated area; while those with the same holding size constituting 18 per cent of the total holdings in

Hamirpur owned only 2 per cent of the total cultivated area. The households with the holding size of upto 5 acres were 15.28 per cent of the total households in Allahabad but owned about 20 per cent of the total net sown area. In Hamirpur, they constituted 22.14 per cent of the total households but owned only 6.21 per cent of the total net sown area. The households with the holding size of upto 10 acres owned about 21.24 per cent of the total area in Allahabad; while they constituted only about 9 per cent of the total area in the district. Those in Hamirpur were 20.45 per cent of the total households but owned about 28 per cent of the total sown area. The households in the holdilng size-group of 10 acres and above constituted about 6 per cent of the total households in Allahabad but owned 39 per cent of the total area in the district. In Hamirpur, these households were 22 per cent of its total households but owned a little more than 64 per cent of the total area in the district. In both districts taken together, these households which constituted about 17 per cent of their total households, owned a little more 60 per cent of their total area. All this shows a highly skewed pattern of land ownership distribution in the drought-prone districts of the state.

2.4 Cropping Pattern and Culture

The drought-prone districts have their own agro-climatic specificity which primarily conditions the pattern of cultivation and crop culture in their villages. The village data as presented in Table 2.4 show that the cultivation of food crops and mixed cropping are the basic characteristics of

agriculture in the sample districts. Almost all cropped area was found to be under cereals and pulses in both districts, having some insignificant proportion of area under sugarcane and edible oils there. The area under cereals covered 83.49 per cent of the total foodgrain cropped area in Allahabad and about 92 per cent of the total sown area under foodgrain in Hamirpur. Pulses like gram, masoor, Arhar, etc. were cultivated in the rest of their respective total area. The area under mixed cropping which included a cultivation of some specific cereals with pulses, covered 20 per cent of the total area under foodgrains in Allahabad and 74 per cent of that total area in Hamirpur. It shows that Hamirpur, one of the most dry areas, has the practice of mixed cropping on a large scale in its village economy.

The pattern of crop-wise cultivation shows that rice and wheat are the major food crops in Allahabad. They were cultivated in 52 per cent of the total area under foodgrains in the district. In Hamirpur, these two crops were cultivated in about 9 per cent of its total area under foodgrains. The fact is that paddy is not a major stable food crop but wheat which is also cultivated as a part of mixed crop culture. As a result, the area under wheat alone occupies only 7.20 per cent of the total area under foodgrains in Hamirpur. The main causes for different types of cropping pattern and crop culture in the two districts are their agro-climatic specificities and the different levels of irrigation development. In Allahabad district, with better irrigation coverage, the cultivation of such crops like paddy and wheat were popular. Table 3.4

indicates that the proportion of irrigated area under most of the crops was much higher in Allahabad district than that in Hamirpur district. For instance, the irrigated part of the total foodgrains cultivated area was 36 per cent in Allahabad district as against 14 per cent irrigated area in Hamirpur district and 19 per cent in both districts combined. Similarly the irrigated part of most of the commercial crops was also found to be more in Allahabad district than in Hamirpur district. Moreover, the agro-climatic conditions, (inclusive of bio-chemical characteristics of soils) in Hamirpur area drastically differ from those in Allahabad.

2.5 Drought And Crop Cultivation

The occurrance of a drought in 1979 and its impact on crop cultivation was enquired in the sample villages of the respective districts. Thus, an assessment of the impact of drought on net area sown and the type of the crops affected were made, as shown in Table 2.5. The table shows that drought affected to the extent of 90 per cent of the net area sown in Hamirpur district in 1979. The drought also affected 73 per cent of the total net area sown in Allahabad district. On an average, 69 per cent of the net area sown was hit by the 1979 drought, in both districts taken together. The severity of drought had been relatively low in Allahabad district as compared with Hamirpur district. This had been due to some better availability of irrigation facilities in Allahabad than what was found in Hamirpur. However, the crops were damaged landing to fall in production in both the districts.

2.6 Irrigation Facilities

The irrigation development in drought prone districts is limited because of scanty and erratic nature of rainfall and geo-physical constraints. The limited role of irrigation in the agriculture of the sample districts also reflected from the aggregative data of the sample villages of the respective districts presented in Table 3.6. The table indicates that the percentage of net irrigated area to total net area sown was found to be as low as 10.19 per cent in Hamirpur district as against 45.60 per cent in Allahabad district and 14.77 per cent at the average of the two districts. With this given level of irrigation, the canal was the most important source of irrigation in both the districts. However, while the tubewells were the next important source of irrigation in Hamirpur district, the pumpsets were the second important source of irrigation in Allahabad district. The area irrigated by tanks, ponds and reservoirs was 2.61 per cent of the total irrigated area in Allahabad in comparison with 1.50 per cent in Hamirpur district and 1.94 per cent in both districts taken together. The canal, tubewell and pumpset were, however, not protective in the case of scarcity of railns or its failure; but were in fact facilitating in character during the rainy season.

2.7 Industrial Activities

Village industries had been been one of the major production activities at the household level in pre-colonial village India. But most of them faced the process of extinction during the colonial rule which is still going on

even in today's India, despite the state policy to retain the old traditional relations of non-agricultural production in village India. There are villages in the country wherein power operated ghani or baby expeller, atta chakki, power looms etc. are found today. All this is also true in respect of Uttar Pradesh.

In the sample villages of Allahabad and Hamirpur districts certain industrial units like saw machine, atta chakki, bidi making, basket-making, selicate making etc. were found to be in operation at the household. Table 2.7 shows that of 9 villages in Allahabad and Hamirpur each, there were two villages in Hamirpur district and four villages in Allahabad district without any industrial unit or activity. The rest of villages belonging to these two districts were having at least one industrial unit in operation at the household. The same table shows that some of the villages were having more than one industrial units.

The Chandaut Douda of Hamirpur had six atta chakkies, one ghani, two saw mills and two ara machines. In the same village, there were twelve households which were engaged in basket making. In the same district, three households belonging to Rohari village and two households in Basaria village (having one atta chakki apart) were engaged in basket-making. At Burgawan in Hamirpur district, there were one atta chakki and one saw machine, and its two households had the activity of basket-making in operation. The villages of Tikkari Buzurg, Pahara and Banipura belonging to Hamirpur district had atta chakki varying from one in Tikkari Buzurg to

5 in Pahara. Most of the atta chakkies were power-operated.

In Allahabad district, there was only one village which had atta chakki, otherwise most of them had basket-making. There were households in Champatpur village whose all family members were engaged in bidi-making. They were making bidies on wage payment basis to the commission agent (intermediary) of the wholesale bidi trader belonging to Allahabad city who supplied raw materials to the bidi-makers in the village. Hence it was running on the basis of labour sub-contract in the village. There were also three selicate making units at Lakhanpur Village in Allahabad district. All the above shows that the villages belonging to Hamirpur district were having more industrial units than those belonging to Allahabad.

2.8 Drinking Water

One of the major difficulties that the village people face in drought-prone areas is the lack of or defficient supply of water (whether surface or ground water) for domestic consumption. The problem of drinking water becomes more acute when the villages face the vaggaries of nature at the time of drought.

In the villages, the people, by and large, depend on the traditional source of drinking water, i.e., well. But this source of drinking water is itself subject to the erratic monsoon and availability of groundwater potential which is generally found in limited quantum and that too, quite deep into ground. River or stream, pond and tank are other traditional sources of drinking water in the villages. The

modern sources of drinking water as found in towns or cities are virtually negligible.

Table 2.6 shows that all the drought-prone villages belonging to Allahabad and Hamirpur districts had the wells as the major source of drinking water. There were two villages wherein domestic and community taps were also found to be the source of drinking water. A few houses were having taps in one village and the other village had one or two community taps. Except these two villages, river, pond and tank were the supplementary sources of drinking water; having well as common in all the villages. Well was the major source of drinking water in all the villages belonging to Hamirpur. The same table also shows tank or pond and river as the other sources of drinking water in some of the villages. There were two villages where hand pump was also found to be a source of drinking water.

All this indicates that the villages primarily depend on natural and traditional sources of drinking water.

2.9 Social Infrastructural Facilities

The accessibility of the village population to the social infrastructural facilities within a reasonable distance was not easy in the sample villages of Uttar Pradesh. Some 35 per cent of the total sample villages were located within the distance of 0-3 Kms. from the pucca road iln Allahabad and Hamirpur districts. The spatial location of villages within a distance of 0-3 Kms. from kuchcha road was 56 per cent in Allahabad district and 22 per cent in Hamirpur district as against 39 per

cent in both combined. The sample villages of Hamirpur district were completely lacking all the social infrastructural facilities within the distance of 0-3 Kms. as evident from the Table 2.9, except the facilities of bus stand, fair price shop and cooperative credit societies. The villages of Allanabad district were having better accessibility to all types of social facilities as the proportion of total villages ranging from 11 per cent to 56 per cent were situated within the distance of 0-3 Kms. from most of the social facilities in Allahabad district. In general out of the total sample drought-prone villages of U.P., 6 per cent to 33 per cent were located within the easy accessable distance of 0-3 Kms. from various social amenities and facilities. But on the whole, as the same table indicates, most of the villages did not have easy accessibility to the infrastructural facilities as required to be for their proper development.

2.10 Summary

The foregoing discussion shows that the village people depend on agriculture which is the main source of livelihood and employment. Agriculture with skewed land distribution is primarily nature-bound and in the absence of assured irrigation facilities and appropriate technological development, the severity of drought adversely affect agriculture and so the people in the villages. Non-agricultural activities are neither developed nor diversified. As a result, the villagers did not have sources to supplement their income at the time of drought.

Drinking water is one of the basic needs for subsistence. But the villages mostly depend on the traditional and natural sources of water such as well, stream, tank etc. for domestic consumption. The rain-fed character of these sources of drinking water creates the problem of scarcity, specially at the time of drought resulting from scanty or negligible rainfall in the villages.

The villages do not have easy access to the infrastructural facilities. Many of them are located for away from the means of transport and from the centres where other facilities are available. As a result, the people face hardships in different froms and orders.

All this shows how the rural people of the drought-prone areas are socially and economically positioned there and live on with hardships.

Table - 2.1 : Socio-Demographic Features of the Sample Districts

Sl.No.	Particulars	Allahabad	Hamirpur	Combined
1.	No. of Households	1008	1956	2964
2.	Total Population	5659	12726	18385
	(i) Male	3088	6800	9888
	(ii) Female	2571	5926	8497
3.	Average size of family	6.00	7.00	6.20
4.	Sex ratio	833	871	859
5.	Literates	1578 (27.89)	2798 (21.99)	4376 (23.80)
6.	Schedule Caste and Schedule Tribe	1030 (18.20)	2338 (18.37)	3368 (18.32)
7.	No. of Workers	2187 (38.65)	4824 (37.91)	7011 (38.13)

N.B.: Figures in brackets refer to percentage of total population.

Table - 2.2 : Pattern of Land Use

	Particulars	Allahabad	Hamirpur	Combined
1.	Total Reporting Area	5077 (100.00)	24440 (100.00)	29517 (100.00)
2.	Forest	90 (1.77)	1395 (5.71)	1485 (5.03)
3.	Cultural Waste	685 (13.49)	2464 (10.08)	3149 (10.67)
4.	Area not available for cultivation	1010 (19.90)	1841 (7.53)	2851 (9.66)
5.	Current Fallow	842 (16.59)	1998 (8.18)	2840 (9.62)
6.	Pasture and other grazing land	20 (0.39)	415 (1.70)	435 (1.47)
7.	Net Area Sown	2430 (47.86)	16327 (66.80)	18757 (63.55)
8.	Cropping Intensity	123.42	106.02	108.25

N.B. : Figures in brackets refer to percentage of total reporting area.

Table - 2.3 : Distribution of Holdings and Area According to Ownership Holding Size-Groups

Size Group (Acre)	Allahabad		Hamirpur		Combined	
	No. of holdings	Cultivated area	No. of holdings	Cultivated area	No. of holdings	Cultivated area
Landless	229 (22.72)	--	344 (17.59)	--	573 (19.33)	--
Upto - 1.00	169 (16.77)	104.48 (3.59)	93 (4.75)	41.83 (0.26)	262 (8.84)	146.31 (0.78)
1.00 - 2.50	299 (29.66)	480.38 (16.52)	256 (13.10)	277.58 (1.74)	555 (18.73)	757.96 (4.02)
2.50 - 5.00	154 (15.28)	568.46 (19.55)	433 (22.14)	990.79 (6.21)	587 (19.80)	1559.25 (8.26)
5.00 - 10.00	90 (8.93)	617.51 (21.24)	400 (20.45)	4403.92 (27.60)	490 (16.53)	5021.43 (26.62)
10.00 - 20.00	50 (4.96)	656.66 (22.58)	294 (15.04)	7917.78 (49.62)	344 (11.61)	8574.44 (45.45)
20.00 & Above	17 (1.68)	480.47 (16.52)	136 (6.93)	2325.15 (14.57)	153 (5.16)	2805.62 (14.87)
Total	1008 (100.00)	2907.96 (100.00)	1956 (100.00)	15957.05 (100.00)	2964 (100.00)	18865.01 (100.00)

N.B. : Figures in brackets refer to percentage of total.

Table – 2.4 : Crops Cultivations in the Sample Districts

(Acres)

CROPS'	ALLAHABAD		HAMIRPUR		COMBINED	
	Irrigated Area	Total	Irrigated Area	Total	Irrigated Area	Total
1. Paddy	338 (42.79) (35.77)	790 (100.00) (29.71)	--	128 (1.39)	338 (36.82) (15.00)	918 (100.00) (7.75)
2. Wheat	493 (81.49) (52.17)	605 (100.00) (22.75)	606 (91.68) (46.33)	661 (100.00) (7.20)	1099 (86.81) (48.78)	1266 (100.00) (10.69)
3. Jowar	--	30 (100.00) (1.13)	--	--	--	30 (100.00) (0.25)
4. Bajra	1 (12.5) (0.11)	8 (100.00) (0.30)	--	--	1 (12.5) (0.04)	8 (100.00) (0.07)
5. Barley	3 (23.08) (0.32)	13 (100.00) (0.49)	30 (56.60) (2.29)	53 (100.00) (0.58)	33 (50.00) (1.47)	66 (100.00) (0.56)
6. Mixed Cereals	99 (13.29) (10.48)	745 (100.00) (28.02)	604 (8.87) (46.18)	6809 (100.00) (74.17)	703 (9.31) (31.20)	7554 (100.00) (63.81)
7. Other Cereals	2 (6.90) (0.21)	29 (100.00) (1.09)	18 (28.57) (1.38)	63 (100.00) (0.69)	20 (21.74) (0.89)	92 (100.00) (0.78)
8. Total Cereals	936 (42.16) (99.05)	2220 (100.00) (83.49)	1256 (16.31) (96.18)	7714 (100.00) (84.03)	2194 (22.09) (97.38)	9934 (100.00) (83.91)
9. Urd	--	--	18 (81.82) (1.38)	22 (100.00) (0.24)	18 (81.82) (0.80)	22 (100.00) (0.19)
10. Moong	--	--	--	2 (100.00) (0.02)	--	2 (100.00) (0.02)
11. Gram	1 (0.30) (0.10)	334 (100.00) (12.56)	17 (1.45) (1.29)	1175 (100.00) (12.80)	18 (1.19) (0.80)	1509 (100.00) (12.74)
12. Pea	7 (10.77) (0.74)	65 (100.00) (2.45)	1 (20.00) (0.08)	5 (100.00) (0.05)	8 (11.43) (0.36)	70 (100.00) (0.59)
13. Masoor	--	19 (100.00) (0.71)	14 (5.34) (1.07)	262 (100.00) (2.86)	14 (4.98) (0.62)	281 (100.00) (2.37)
14. Arhar	1 (50.00) (0.10)	2 (100.00) (0.08)	--	--	1 (50.00) (0.04)	2 (100.00) (0.02)

Contd..

(Table - 2.4 Contd..)

CROPS'	ALLAHABAD		HAMIRPUR		COMBINED	
	Irrigated Area	Total	Irrigated Area	Total	Irrigated Area	Total
15. Other Pulses	--	19 (100.00) (0.71)	--	--	--	19 (100.00) (0.16)
16. Total Pulses	9 (2.05) (0.95)	439 (100.00) (16.51)	50 (3.41) (3.82)	1466 (100.00) (15.97)	59 (3.10) (2.62)	1905 (100.00) (16.09)
17. Total Food-grains	945 (35.54) (100.00)	2659 (100.00) (100.00)	1308 (14.25) (100.00)	9180 (100.00) (100.00)	2253 (19.03) (100.00)	11839 (100.00) (100.00)
18. Sugar Cane	2 (66.66)	3 (100.00)	5	--	7 (23.33)	3 (100.00)
19. Alsi, Lahi (mix)	1 (1.32)	76 (100.00)	75 (35.05)	214 (100.00)	76 (26.21)	290 (100.00)
20. Til	--	--	6 (18.18)	33 (100.00)	6 (17.65)	34 (100.00)

N.B. : Figures in brackets refer to percentage of total.

Table - 2.5 : Impact of Drought on Net Area Sown and Crops in Sample Districts

	Particulars	Allahabad	Hamirpur	Combined
1.	Last Drought Year	1979	1979	1979
2.	Net area sown (acres)	1484 (100.00)	14278 (100.00)	15762 (100.00)
3.	Net area sown affected by drought	1085 (73.11)	12910 (90.42)	13995 (88.79)
4.	Type of crops affected	Paddy, Wheat, Gram, Arhar and Mustard	Paddy, wheat, Bajra, Jowar Gram, Arhar, Urd, Sawan, and Til	Paddy, wheat Bajra, Jowar Gram, Arhar Urd, Sawan and Til

N.B. : Figures in brakets refer to percentage of total.

Table - 2.6 : Irrigated Area and Sources of Irrigation in Sample Districts.

Particulars	Allahabad	Hamirpur	Combined
Net Irrigated Area	1108	1663	2771
Percentage of net irrigated area in net area sown	45.60	10.19	14.77
Sources of Irrigation			
I. Canal	747 (67.42)	1018 (61.22)	1765 (63.70)
II. Tubewell	106 (9.57)	602 (36.20)	708 (25.55)
III. Pumpset	226 (20.40)	18 (1.08)	244 (8.81)
IV. Tank/Pond/Reservoir	29 (2.61)	25 (1.50)	54 (1.94)
V. Total	1108 (100.00)	1663 (100.00)	2771 (100.00)

N.B. : Figures in brackets refer to percentage of total.

Tabale - 2.7 : No. of Industrial Units

Name of Village	Discription of Industrial Units and Number
Allahabad	
1. Gadawa Kurd	Nil
2. Gadara	Nil
3. Jagdishpur	Atta chakki - one
4. Palpur	Basket-making - one household
5. Champatpur	Bidi-making - 3 households
6. Lakhanpur	Solicate-making - 3
7. Jhajhara Pande	Basket-making - one Household
8. Dadri Taluk	Nil
9. Dadri Naini	Nil
Hamirpur	
1. Chandant Deuda	Atta chakki - 6, Ghani - 1, Saw mill - 2 Ara Machine - 2, Basket-making - 12 Households
2. Rohari	Basket-making - 3 Households
3. Tikkri Buzurg	Atta Chakki - 1
4. Basaria	Atta chakki - 1, Basket-making - 2 Households
5. Bhamhaura	Nil
6. Burgawon	Atta chakki - 1, Basket making - 2 Households, Saw Machine - 1
7. Pahara	Atta chakki - 5
8. Banipura	Atta chakki - 2
9. Kumhdaura	Nil

Table - 2.8 : Sources of Drinking Water

Sources of Drinking Water	No. of Villages in Allahabad	Sources of Drinking Water	No. of Villages in Hamirpur
1. River + Well + Community Tap	1	1. River + well	3
2. Well + Pond	2	2. Canal + Well + Tank	1
3. Well + Tank	1	3. Well + Hand Pump	2
4. Well + Domestic Tap	1	4. Well only	3
5. Well + Community Tap	1		
6. Well only	3		
Total	9		9

Table - 2.9 : Classification of the Villages of Sample Districts According to Their Distance from Various Social Infrastructural Facilities

Facilities	Allahabad					
	Distance in Kms.					Total Villages
	0-1	1-3	3-6	6-9	9 +	
1. Pacca Road	-	3 (33.33)	1 (11.11)	4 (44.45)	1 (11.11)	9 (100.00)
2. Kuchcha Road	2 (22.22)	3 (33.34)	2 (22.22)	1 (11.11)	1 (11.11)	9 (100.00)
3. Distance of nearest primary school	1 (11.11)	5 (55.56)	1 (11.11)	1 (11.11)	1 (11.11)	9 (100.00)
4. Distance of nearest Junior High School	-	5 (55.56)	3 (33.33)	1 (11.11)	-	9 (100.00)
5. Distance of nearest Higher Secondary School	-	3 (33.34)	3 (33.33)	1 (11.11)	2 (22.22)	9 (100.00)
6. Primary Health Centre	-	2 (22.22)	2 (22.22)	2 (22.22)	3 (33.34)	9 (100.00)
7. Family Welfare Centre	-	4 (44.44)	2 (22.22)	-	3 (33.34)	9 (100.00)
8. Allopathic/Other Hospital	-	3 (33.34)	2 (22.22)	1 (11.11)	3 (33.33)	9 (100.00)
9. Veterinary Hospital/ Dispensary	-	4 (44.44)	3 (33.34)	1 (11.11)	1 (11.11)	9 (100.00)
10. Nearest Post Office	1 (11.11)	5 (55.56)	1 (11.11)	2 (22.22)	-	9 (100.00)
11. Telegraph Office	-	3 (33.34)	1 (11.11)	3 (33.33)	2 (22.22)	9 (100.00)
12. Seed Store	-	2 (22.22)	4 (44.45)	1 (11.11)	2 (22.22)	9 (100.00)
13. Fertiliser store	-	3 (33.34)	3 (33.33)	1 (11.11)	2 (22.22)	9 (100.00)
14. Bus Stand	1 (11.11)	4 (44.45)	1 (11.11)	2 (22.22)	1 (11.11)	9 (100.00)
15. Railway Station	-	1 (11.11)	1 (11.11)	2 (22.22)	5 (55.56)	9 (100.00)
16. Bank	-	1 (11.11)	1 (11.11)	2 (22.22)	5 (55.56)	9 (100.00)
17. Fair Price Shops	-	2 (22.22)	3 (33.34)	2 (22.22)	2 (22.22)	9 (100.00)
18. Co-operative Societies	-	1 (11.11)	2 (22.22)	4 (44.45)	2 (22.22)	9 (100.00)

Contd...

(Table 2.9 Contd..)

Facilities	Hamirpur					
	Distance in Kms.					Total Villages
	0-1	1-3	3-6	6-9	9 +	
1. Pacca Road	-	3 (33.33)	4 (44.45)	1 (11.11)	1 (11.11)	9 (100.00)
2. Kuchcha Road	1 (11.11)	1 (11.11)	3 (33.33)	3 (33.34)	1 (11.11)	9 (100.00)
3. Distance of nearest primary school	-	-	3 (33.33)	5 (55.56)	1 (11.11)	9 (100.00)
4. Distance of nearest Junior High School	-	-	4 (44.44)	1 (11.11)	4 (44.45)	9 (100.00)
5. Distance of nearest Higher Secondary School	-	-	2 (22.22)	1 (11.11)	6 (66.67)	9 (100.00)
6. Primary Health Centre	-	-	2 (22.22)	1 (11.11)	6 (66.67)	9 (100.00)
7. Family Welfare Centre	-	-	2 (22.22)	1 (33.33)	3 (44.45)	9 (100.00)
8. Allopathic/Other Hospital	-	-	2 (22.22)	1 (11.11)	6 (66.67)	9 (100.00)
9. Veterinary Hospital/ Dispensary	-	-	3 (33.33)	1 (11.11)	5 (55.56)	9 (100.00)
10. Nearest Post Office	-	-	4 (44.44)	4 (44.45)	1 (11.11)	9 (100.00)
11. Telegraph Office	-	-	2 (22.22)	1 (11.11)	6 (66.67)	9 (100.00)
12. Seed Store	-	-	2 (22.22)	1 (11.11)	6 (66.67)	9 (100.00)
13. Fertiliser store	-	-	2 (22.22)	1 (11.11)	6 (66.67)	9 (100.00)
14. Bus Stand	-	1 (11.11)	1 (11.11)	4 (44.45)	3 (33.33)	9 (100.00)
15. Railway Station	-	-	1 (11.11)	2 (22.22)	6 (66.67)	9 (100.00)
16. Bank	-	-	2 (22.22)	1 (11.11)	6 (66.67)	9 (100.00)
17. Fair Price Shops	1 (11.11)	-	-	3 (33.33)	5 (55.56)	9 (100.00)
18. Co-operative Societies	-	1 (11.11)	4 (44.45)	2 (22.22)	2 (22.22)	9 (100.00)

Contd...

(Table 2.9 Contd...)

Facilities	Combined					
	Distance in Kms.					Total Villages
	0-1	1-3	3-6	6-9	9 +	
1. Pacca Road	-	6 (33.33)	5 (27.78)	5 (27.78)	2 (11.11)	18 (100.00)
2. Kuchcha Road	3 (16.67)	4 (22.22)	5 (27.78)	4 (22.22)	2 (11.11)	18 (100.00)
3. Distance of nearest primary school	1 (5.56)	5 (27.78)	4 (22.22)	6 (33.33)	2 (11.11)	18 (100.00)
4. Distance of nearest Junior High School	-	5 (27.78)	7 (38.89)	2 (11.11)	4 (22.22)	18 (100.00)
5. Distance of nearest Higher Secondary School	-	3 (16.67)	5 (27.78)	2 (11.11)	8 (44.44)	18 (100.00)
6. Primary Health Centre	-	2 (11.11)	4 (22.22)	3 (16.67)	9 (50.00)	18 (100.00)
7. Family Welfare Centre	-	4 (22.22)	4 (22.22)	3 (16.67)	7 (38.89)	18 (100.00)
8. Allopathic/Other Hospital	-	3 (16.67)	4 (22.22)	2 (11.11)	9 (50.00)	18 (100.00)
9. Veterinary Hospital/ Dispensary	-	4 (22.22)	6 (33.33)	2 (11.11)	6 (33.34)	18 (100.00)
10. Nearest Post Office	1 (5.56)	5 (27.78)	5 (27.78)	6 (33.33)	1 (5.55)	18 (100.00)
11. Telegraph Office	-	3 (16.67)	3 (16.67)	4 (22.22)	8 (44.44)	18 (100.00)
12. Seed Store	-	2 (11.11)	6 (33.33)	2 (11.11)	8 (44.45)	18 (100.00)
13. Fertiliser store	-	3 (16.67)	5 (27.78)	2 (11.11)	8 (44.44)	18 (100.00)
14. Bus Stand	1 (5.56)	5 (27.78)	2 (11.11)	6 (33.33)	4 (22.22)	18 (100.00)
15. Railway Station	-	1 (5.56)	2 (11.11)	4 (22.22)	11 (61.11)	18 (100.00)
16. Bank	-	1 (5.56)	3 (16.67)	3 (16.66)	11 (61.11)	18 (100.00)
17. Fair Price Shops	1 (5.56)	2 (11.11)	3 (16.67)	5 (27.78)	7 (38.88)	18 (100.00)
18. Co-operative Societies	-	2 (11.11)	6 (33.33)	6 (33.34)	4 (22.22)	18 (100.00)

N.B. : The figures in brackets refer to percentage of total.

CHAPTER III

DEMOGRAPHIC AND OCCUPATIONAL STRUCTURE OF SAMPLE HOUSEHOLDS

The factors determining the capacity of an area for socio-economic development consist of availability of raw materials, capital, power, market, machinery and equipment, entrepreneurial ability and technical and skilled manpower. These determinants could broadly be grouped into three heads: human, physical and financial. Of these three key factors, the human resource is considered to be the most crucial because of its being primary ingredient of the soil and atmosphere in which development has to florish or languish. Despite the availability of inexhaustible natural resources, the area cannot make rapid strides towards social and economic advancement unless there is human resources to mobilise, organise and harness these resources for production of goods and services. It is in this background that both the quantitative and qualitative aspects of the population of the sample households in terms of sex-ratio, age-groups, literacy, labour force, work force, activity status, occupational structure, employment pattern and migration are analysed in this chapter. While presenting the findings, the district-wise households, as ultimate unit of investigation, are pooled together to arrive at situation emerging at the level of sample districts of Allahabad and Hamirpur.

3.1 Household population and sex-ratio

The total 649 households comprising of 252 from Allahabad district and 397 from Hamirpur district constituted the size of the sample from these two drought prone districts of Uttar Pradesh. Thus the sample size covered the total population of 4,005 which included 1,458 persons from Allahabad district and 2,547 persons from Hamirpur district. The average size of total households in both districts taken together were 6.17 persons, while it was 5.79 persons in Allahabad district and 6.42 persons in Hamirpur district. The sex ratio, i.e. females per thousand of males, was comparatively higher (870) in Allahabad district as against Hamirpur district (810). Table 3.1 shows that the sex-ratio was 830 in both districts taken together.

3.2 Age Structure

The age structure of population as presented in Table 3.2 shows that the family members of sample households as indicated by the population in the age group of below 5 years constituted 13.31 per cent of the total population in Allahabad district, 12.60 per cent of the total population in Hamirpur district and 12.86 per cent at the combined level of these two districts. The proportion of working population, (i.e., in the age group of 15 years to 59 years) was 47.83 per cent in Hamirpur district as against 45.20 per cent in Allahabad district and 46.87 per cent at the combined level. The percentage of old age and physically retired persons in total population, i.e.,

the population with the age of 59 years and above was also found to be slightly higher in Hamirpur district as against the Allahabad district and that of the total sample.

3.3 Literacy and Education

The proportion of illiterates in the total population was 68.24 per cent in Allahabad district, 67.06 per cent in Hamirpur district and 67.49 per cent in both districts combined. Thus, the literacy level was slightly lower (31.76 per cent) in Allahabad district than in Hamirpur district with 32.94 per cent. Table 3.3 indicates that the educational level of literate population indicate a divergent pattern in Allahabad district from that of Hamirpur district. The proportion of the literates and educated upto primary level (i.e. upto the Vth standard) was found to be 23.83 per cent in Hamirpur district than in Allahabad district with 19.41 per cent and 22.23 per cent in both districts taken together. On the other hand the percentage of population with education of Class V to VII was higher in Allahabad district having 8.85 per cent as against 7.42 in Hamirpur district and 7.94 per cent in both districts combined. Moreover, the percentage of graduates and post-graduates and technical/professional was also higher in Allahabad district having 3.50 per cent as against 1.69 per cent in Hamirpur and 2.34 per cent in both districts taken together. Thus, the distribution pattern of population according to different levels of education shows that the level of literacy (i.e. upto priimary education) was higher in Hamirpur than that in Allahabad; while the proportion

of population with higher level of education was more in Allahabad than that in Hamirpur.

3.4 Activity Status of the Population

The sample households had a population of 1458 persons in Allahabad district, 2547 persons in Hamirpur district and thus 4005 persons in both districts taken together. Table 3.4 shows that 44.86 per cent of 1458 persons, 44.29 per cent of 2547 persons and 44.50 per cent of 4005 constituted labourforce in Allahabad, Hamirpur and in both combined respectively. These respective figures also include the proportions of unemployed to the total population in these two districts. The percentage of unemployed population was 3.02 per cent in Allahabad district and 2.20 per cent in Hamirpur district. All this also indicates that the non-working population constituted 55 per cent of the total population belonging to these two districts. The child population accounted for less than 28 per cent (i.e. about one third) of the total population in each of the districts or in both districts combined.

3.5 Occupational Characteristics

A majority of the workers were engaged in agriculture either as their main or secondary occupation. Table 3.5 shows that a little more than 62 per cent of the total workers in Allahabad district were primarily engaged in farming as the cultivators and agricultural labourers; while in Hamirpur, about 83 per cent of the total workers were reported to have been employed in agriculture. The non-agricultural workers constituted about 18 per cent of the total workers in Allahabad

district and 7.46 per cent of the total workers in Hamirpur district. The rest of the workers were employed in construction, business and tertiary activities. The proportion of the total workers engaged in other than agriculture in Allahabad district is higher than that obtained in Hamirpur because of the approximity of the Allahabad villages to Naini industrial estate and Allahabad city which offered more accessibility to the non-agricultural activities there. All the sample villages of Allahabad district belong to the other side of the Yemuna river stretched over to the border of and joining Mirzapur district. However it is to be noted that many of the cultivators also worked as agricultural labourers as the secondary occupation. But it was very difficult to identify them having engaged in agriculture as the secondary source of occupation.

3.6 Employment in Agriculture

There were 381 and 889 agricultural workers (i.e. cultivators plus agricultural labourers) in Allahabad and Hamirpur districts respectively. In all, the total number of agricultural workers were 1270 in both districts taken together. There were 229 and 183 workers employed in other than agriculture in Allahabad and Hamirpur districts respectively. Thus the proportions of the total workers engaged in agriculture were 62.46 per cent in Allahabad, 82.93 per cent in Hamirpur and 75.50 in both districts taken together. The rest of the total workers, as mentioned above, were employed in the activities other than agriculture.

The distribution of workers according to dif ferent groups of employment in terms of days as presented in Table 3.6 shows that about 40 per cent and 35 per cent of total agricultural workers in Allahabad and Hamirpur districts respectively were employed in agriculture for less than 50 days to 100 mandays per year in these two districts. If the proportion of total agricultural workers employed in agriculture belonging to the first three groups is taken into account, it amounted to be 56 per cent in Allahabad distsrict and 71 per cent in Hamirpur district. In otherwords, the rest of the workers getting employment for more than 150 days per year constituted 44 per cent in Allahabad district and 29 per cent in Hamirpur district. In fact, 23 workers out of 38 total agricultural workers in Allahabad (i.e. about 7 per cent) and 29 workers out of 889 total workers in Hamirpur (i.e. 3.2 per cent) got employment in agriculture for more than 250 days in these two districts. The employment pattern of the agricultural workers indicates that a majority of them were not fully employed in agriculture, despite having the characteristic of full dependence on agriculture for their employment in terms of labour time.

The holding-wise distribution of agricultural workers and their employment, as shown in Table 3.6, indicaters that out of 90 workers in the landless category belonging to Allahabad, 27 workers (i.e.30 per cent) got employment varying from less than 50 days to 100 days in agriculture; while in Hamirpur, about 50 per cxent of the total agricultural workers in the landless

category were engaged for less than 100 days (i.e. less than 50 to 100 days) in agriculture. In other words, a larger number of such workers got more employment in agriculture belonging to Allahabad than what was found in Hamirpur district. About 50 per cent of the total agricultural workers in the category of upto 2-5 acres of land holdilng were engaged in agriculture for less than 100 days in year in both of the districts. This means that the rests of these workers had employment more than 100 days but less than 250 days in year, except in the case of one worker belonging to each of the district who where employed for more than 250 days in year. So far the workers in the category of holding size of 2.5 to 5.0 acres are concerned, the same table indicates that nearly half of the total workers belonging to the same category got employment for upto 100 days per year in agriculture in both of the districts. About 33 per cent of the total agricultural workers in the category of holding size of 5 acres and above belonging to Allahabad district were reported to have been employed in agriculture for less than 100 days per year; but in Hamirpur district, 50 per cent of the total agricultural workers belonging to the same category worked for less than 100 days per year in agriculture. It is also evident from the same table that a three-fourth of the total workers in the category of holding size of 5 acres and above belonging to each of the districts got employment for less than 150 days per year in agriculture. What all this shows are two things. Firstly, a majority of the agricultural workers in both districts were employed in agriculture not more than 150 days in a year; and secondly, the agricultural

workers got more days of employment in Allahabad than in Hamirpur district, if such figures are compared between them at the inter-holding size-level. The second one becomes evident when the employment level of the agricultural workers at the inter-holding size level is taken into consisderation. Table 3.6 shows that the average employment of agricultural workers in different holding categories belonging to Allahabad was higher than the same of the workers in Hamirpur district. The average number of days put in by the agricultural workers was 139.28 in Allahabad district; while it was 125.78 in Hamirpur district. This implies that on an average, the agricultural workers got employment for a little more than 139 days in Allahabad district and about 126 days in Hamirpur district. In other words, for more than half of the days in year, they remained without work in agriculture in the drought prone villages.

3.7 Employment in Activities other than Agriculture

The number of workers engaged in the activities other than agriculture were 229 in Allahabad district, 183 in Hamirpur district and 412 in the aggregate sample. The proportions of these workers in their respective total workers come out to be 37.54 per cent in Allahabad, 17.07 per cent in Hamirpur and 24.50 per cent in both districts. Thus in Allahabad district a higher proportion of the workers were engaged in the activities other than agriculture. However, among those employed in the activities other than agriculture 122 workers in Allahabad district, 103 and 225 in total sample got employment for more

than 200 days. The proportions of these workers in the total workers come out to be 53 per cent, 56 per cent and 55 per cent in these two districts and combining both respectively.

A majority of those who were employed for longer days were generally having small size of land holdings in these two distsricts. However, the proportion of such workers owning small land holding was relatively high (80 per cent) in Allahabad, as having 63 per cent in Hamirpur district and 76 per cent in both districts taken together. Similarly, most of the workers employed for less than 200 days also belonged to the smaller holdings in each of the districts or in both combined.

As a result of higher proportion of workers employed for longer days in Hamirpur district in comparison with the Allahabad district, the average employment per worker had also been 226.74 days in Hamirpur district and 220.03 days in Allahabad district and 223.09 days in both combined.

3.8 Employment in All Activities

A total number of 610 workers in Allahabad district, 1072 workers in Hamirpur district and 1682 workers in the total sample were engaged in different types of activities. Out of these workers, the 157 workers (25 per cent) got employment between 150-200 days in Allahabad district where as 357 workers (33 per cent) got engagement in all activities for 50-100 days. The workers employed for more than 200 days in all activities were 340 in Allahabad district (56 per cent of the total workers of Allahabad district), 398 in Hamirpur district

(38 per cent) and 738 in the total sample (45 per cent). Thus considering the employment days of all sample workers in all activities, it appeared that higher proportion of total workers in Allahabad district got employment for longer days as against the proportion of the total workers in Hamirpur district and in both combined. A majority of the workers who were employed either for more than 200 days or less than 200 days in all activities or less than 200 days in all activities owned smaller land holdings in Allahabad district as well as in Hamirpur or in both taken together. The average employment per worker in all activities had also been higher in Allahabad district (182.15 days) than in Hamirpur district having 175.76 days of employment per worker. All this shows that on an average, the workers in both districts were engaged in different activities for more than half of the year.

3.9 Temporary Migration

The workers migrating temporarily for seeking employment from their village households constituted 9.18 per cent of the total workers in Allahabad district, 2.06 per cent in Hamirpur district and 4.63 per cent at the combined level. The migrants of short duration generally had smaller land holdings as 46 out of total migrants in Allahabad district, 12 out of 22 migrants in Hamirpur district had owned land varying from 0 to 5 acres. Out of the total temporary migrants, 96.43 per cent in Allahabad district, 63.64 per cent in Hamirpur district and 87.18 per cent of the aggregate migrated within the state itself. The short period migration within the state

boundaries was generally confined to its rural part in general. However, the migration to the rural areas of the state was found to be comparatively higher i.e. 71.43 per cent of total migrants in Allahabad district as against 36.36 per cent in Hamirpur district and 61.54 per cent in the total sample. Such a trend might be on account of the fact that agricultural economy of Allahabad was relatively more developed and diversified than that Hamirpur district. Hence rural to rural migration of the short duration ltype and that two within the state was much more prevalent in Allahabad than in Hamirpur district. That is why the proportion of total temporary migrants to the urban areas of the state and the urban areas belonging to outside the state was as high as 63.64 per cent in Hamirpur district as against 25.00 per cent in Allahaban district.

The activities in which these migrants were engaged included the jobs of agricultural labour, non-agriciultural labour, construction and others informal activities like vendoring and tea, pan stalls etc. A larger number of migrants were engaged as non-agricultural labour followed by the other activities and agricultural labour in these two drought-prone districts as Table 3.10 shows. However the employment pattern of these migrants in Allahabad district was different from that of Hamirpur district. The largest number of migrants belonging to Allahabad district were employed as non-agricultural labour followed by the employment in other activities and construction. On the other hand, the largest number of

migrants were engaged as agricultural labour followed by the non-agricultural labour and the construction work in Hamirpur district.

The number of workers employed across different activities determined the average earnings per worker. It was observed that the wages of agricultural labour were generally lower as against there of the non-agricultural labour and the income from other activities. Since a substantial number of temporary migrants of Hamirpur district were engaged as agricultural labour, therefore, the average annual earnings per worker were Rs.1794.53 in Hamirpur district as against Rs.3137.86 per worker in Allahabad district where more than half of the total migrants were engaged as non-agricultural labour. The average earnings per worker increased with the increase in land size with the exception in the land size of 5.00 to 7.50 acres in which average earnings per worker declined. Such a trend indicated that average earnings per worker in each land size depended on the dispersal of migrants in different activities. In each of the seven land size groups, there was dispersal of migrants across the activities. On the contrary the migrants of land size of 5.00 to 7.50 acres were engaged only as non-agricultural labour in both districts taken separately or combined. Therefore the average earnings per worker declined in this land size group. On the whole the rural areas of the Allahabad district provided much more remunerative employment to its temporary migrants than those of Hamirpur district.

3.10 Permanent Migration

The permanent migrating workers from drought-prone districts of U.P. were found to be 10 per cent of the total workers in Allahabad district, 6.80 per cent in Hamirpur district and 7.96 per cent in general. Out of the total permanent migrants 54.48 per cent had land holdings of less than 7.50 acres; while 64.38 per cent of total migrants in Hamirpur district were owning land size of 7.50 acres and above, as Table 3.11 indicates. Thus, a majority of permanent migrants of Allahabad district had lower land holdings, than their counterparts in Hamirpur district. The educational level of permanent migrants shows that 56.72 per cent of total migrants were educated upto high school standard in total sample. But more than half i.e. 52.46 per cent of the permanent migrants belonging to Allahabad district were high schools and above; while 64.38 per cent of the migrants belonging to Hamirpur district were educated below the high school level.

The workers from the drought prone districts of Uttar Pradesh mostly migrated permanently to the urban areas of outside the state as Table 3.12 shows. About 46 per cent of total permanent migrants went for employment to the urban areas of the state itself. In Allahabad district, 67.21 per cent of the total migrants were engaged in various jobs in urban areas of the U.P., while 72.60 per cent of total migrants of Hamirpur district migrated to urban areas belonging outside the state. Among those migrating to the urban areas of the state itself, 82.93 per cent in Allahabad district had smaller land size,

while in Hamirpur district, 80 per cent migrants were having large size holdings. A similar migration pat tern was found in case of those who migrated to the urban areas outside the state.

A large number of permanent migrants from the drought-prone districts got employment as non-agricultural labour. The largest number of migrants from Allahabad district were engaged in services than in other activities like non-agricultural labour, business, construction and agricultural labour. But the largest number of migrants of Hamirpur district got employment as non-agricultural labour followed by the employment in construction work, services, other activities, agricultural labour and business. While more than half of the permanent migrants of Allahabad district were employed in service sector, the same percentage of migrants from Hamirpur district were engaged as non-agricultural labour. These inter-district differences in the employment of permanent migrants were due to different levels of education among the migrants in the districts. The educational level of migrants from Allahabad district was comparatively higher than their counterparts of Hamirpur district. The migrants from Allahabad district involved in various activities were having mostly land holdings, size of upto 7.50 acres. On the other hand, the large number of migrants of Hamirpur district involved in the jobs of non-agricultural labour, agricultural labour, services and business were mostly from land holding size of 10 acres and above. The majority of the total migrants combining both the districts (83 migrants) as well as Allahabad district (37 migrants) and Hamirpur district (46 migrants) were found to be

in the monthly income range of Rs.450-600. The number of migrants in the income range of Rs.600 and above were 11 in Allahabad district, 12 in Hamirpur district, as Table 3.14 shows. However the percentage of such migrants in the total was higher (18.03 per cent) in Allahabad district than in Hamirpur district (16.44 per cent). Similarly the number of migrants in the income group of Rs.,300-400 were 13 in each district but their percentage in total migrants was comparatively higher (21.31 per cent) in Allahabad district than in Hamirpur district (17.81 per cent). Moreover, none of the migrants from Allahabad had monthly income of less than Rs.300; while 2.74 per cent of migrants from Hamirpur district were in this income range. Thus the monthly income for migrant was relatively higher in Allahabad than that in Hamirpur district. The land size wise income range of migrants indicated once again that the migrants of Allahabad district in high income groups were the owner of small land holdings whereas the reverse case was in respect of migrants from Hamirpur district.

The higher monthly income of migrants from Allahabad district also enabled them to send higher remittances to their village family members. The average yearly remittance of all migrants amounted to be Rs.3188.23 in Allahabad district as against Rs.2742.76 belonging to Hamirpur district and Rs.2765.18 of the total sample migrants. The remittances sent by the migrants belonging to different land sizes were also

found to be higher in each land holding size group in Allahabad district than in Hamirpur district.

What all this shows is that permanent migration is one of the sources of income to the households in the dropught-prone villages of the districts.

3.11 Summary

The demographic characteristics of the sample households show that not more than 42 per cent of the total population were workers and 68 per cent of the total population were illiterates in the drought-prone district. About 83 per cent of the total workers in Hamirpur district were engaged in agriculture and a little more than 62 per cent of the total workers in Allahabad district were employed in agriculture. The rest of them were engaged in activities other than agriculture. Most of the workers were employed in agriculture for upto 150 days in a year. In a way, agriculture was overloaded with work-force. In all activities taken together, average employment per worker in year did not present encouraging picture.

The workers also migrated from their villages for livelihood. The foregoing discussion shows that both types of migration - temporary and permanent - were found in the districts. Permanent migration was founds to be an important source of income in the villages.

Table – 3.1 : Population, Sex Ratio and Average Household Size

(Number/persons)

Particulars	Allahabad	Hamirpur	Combined
1. No. of sample Households	252	397	649
2. Population			
(i) Male	780	1404	2184
(ii) Female	678	1143	1821
(iii) Total	1458	2547	4005
3. Sex Ratio	870	810	830
4. Average size of Households	5.79	6.42	6.17

Table – 3.2 : Classification of Population According to the Different Age Groups

(Number/persons)

	Age Group	Allahabad	Hamirpur	Combined
1.	Below 5 years	194 (13.31)	321 (12.60)	515 (12.86)
2.	5 – 15 years	452 (31.00)	730 (28.66)	1182 (29.51)
3.	15 – 59 years	659 (45.20)	1218 (47.83)	1877 (46.87)
4.	59 years & above	153 (10.49)	278 (10.91)	431 (10.76)
	Total	1458 (100.00)	2547 (100.00)	4005 (100.00)

N.B. Figures in brackets refer to percentage of total.

Table – 3.3 : Distribution of Population According to Different levels of Education

(Number/persons)

	Educational Level	Allahabad		Hamirpur		Combined	
1.	Illiterate	995 (68.24)		1708 (67.06)		2703 (67.49)	
2.	Literate	51 (3.50)	(11.02)	103 (4.04)	(12.28)	154 (3.85)	(11.83)
3.	Upto Class V	232 (15.91)	(50.11)	504 (19.79)	(60.07)	736 (18.38)	(56.53)
4.	Class V – IX	102 (7.00)	(22.03)	152 (5.97)	(18.12)	254 (6.34)	(19.51)
5.	High school & Intermediate	27 (1.85)	(5.83)	37 (1.45)	(4.41)	64 (1.60)	(4.92)
6.	Graduate & above	15 (1.03)	(3.24)	21 (0.83)	(2.50)	36 (0.90)	(2.76)
7.	Technical/ Professional	36 (2.47)	(7.77)	22 (0.86)	(2.62)	58 (1.44)	(4.45)
8.	Total Literates	463 (31.76)	(100.00)	839 (32.94)	(100.00)	302 (32.51)	(100.00)
	Total Population	1458 (100.00)		2547 (100.00)		4005 (100.00)	

N.B. : Figures in brackets refer to percentage of total.

Table - 3.4 : Activity Status-wise Distribution of Population

(Number)

	Particulars	Allahabad	Hamirpur	Combined
1.	Child	430 (29.49)	704 (27.64)	1134 (28.32)
2.	Student	176 (12.07)	344 (13.51)	520 (12.98)
3.	Working	610 (41.84)	1072 (42.09)	1682 (42.00)
4.	Unemployed	44 (3.02)	56 (2.20)	100 (2.50)
5.	House wife	140 (9.60)	231 (9.07)	371 (9.25)
6.	Retired/Disabled	58 (3.98)	140 (5.49)	198 (4.94)
	Total	1458 (100.00)	2547 (100.00)	4005 (100.00)

N.B. : Figures in brackets refer to percentage of total.

Table – 3.5 : Occupational Distribution of Workers

	Occupational Groups	Allahabad	Hamirpur	Combined
1.	Cultivators	283 (46.39)	757 (70.62)	1040 (61.83)
2.	Agricultural Labour	98 (16.07)	132 (12.31)	230 (13.67)
3.	Non-Agricultural Labour	109 (17.87)	80 (7.46)	189 (11.24)
4.	Dairy & other allied activity	7 (1.15)	16 (1.49)	23 (1.37)
5.	Business	11 (1.80)	24 (2.24)	35 (2.08)
6.	Household type Industry	3 (0.49)	12 (1.12)	15 (0.89)
7.	Construction	7 (1.15)	4 (0.37)	11 (0.65)
8.	Transport	3 (0.49)	5 (0.47)	8 (0.48)
9.	Service	45 (7.38)	16 (1.49)	61 (3.63)
10.	Others	44 (7.21)	26 (2.43)	70 (4.16)
11.	Total workers	610 (100.00)	1072 (100.00)	1682 (100.00)

N.B. : Figures in brackets refer to percentage of total.

Table - 3.6 : Employment Pattern of Agricultural Workers : Holding Sized Group-wise

Land Size Groups (acres)	Employment Days																					Average Employment days per worker		
	Less than 50 days			50 - 100 days			100 - 150 days			150 - 200 days			200 - 250 days			250 and above days			Total					
	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined
1. Landless	5	11	16	11	23	34	11	22	33	30	20	50	21	30	51	12	8	20	90	114	204	179.76	172.64	176.70
2. Less than 2.5	8	5	13	17	11	28	1	7	8	21	4	25	2	3	5	1	-	1	50	30	80	119.33	118.33	118.63
3. 2.5 - 5	30	18	48	32	40	72	24	23	47	21	26	47	3	5	8	7	3	10	117	115	232	125.92	121.25	119.60
4. 5 - 7.50	4	42	46	22	112	134	20	42	62	13	21	34	5	12	17	3	5	8	67	234	301	140.83	103.21	119.46
5. 7.50 - 10	2	26	28	5	85	90	6	41	47	15	38	53	3	16	19	-	7	7	31	213	244	159.16	125.72	144.36
6. 10 - 15	1	6	7	3	55	58	8	26	34	3	17	20	2	12	14	-	1	1	17	117	134	130.00	117.02	124.01
7. 15 & above	-	4	4	2	13	15	1	23	24	4	12	16	2	9	11	-	5	5	9	66	75	173.63	154.44	165.52
Total	50	112	162	92	339	431	71	184	255	107	138	245	38	87	125	23	29	52	381	889	1270	139.28	125.78	133.58

Table - 3.7 : Employment Pattern of Workers Other Than Agriculture: Holding Sized Group-wise

Land Size Groups (acres)	Employment Days																					Average Employment days per worker		
	Less than 50 days			50 - 100 days			100 - 150 days			150 - 200 days			200 - 250 days			250 and above days			Total					
	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined
1. Landless	-	3	3	7	7	14	8	6	14	21	18	39	15	6	21	27	22	49	78	62	140	208.18	213.91	212.64
2. Less than 2.5	2	2	4	1	2	3	-	-	-	4	4	8	8	6	14	24	8	32	39	22	61	274.42	174.61	230.51
3. 2.5 - 5	4	-	4	10	4	14	6	4	10	12	5	17	9	7	16	25	12	37	66	32	98	205.52	228.60	216.56
4. 5 - 7.50	-	3	3	12	3	15	7	3	10	12	8	20	2	7	9	8	18	26	41	42	83	184.40	233.50	209.45
5. 7.50 - 10	-	-	-	-	-	-	-	-	-	1	6	7	-	-	-	-	5	5	1	11	12	200.00	250.83	227.41
6. 10 - 15	-	-	-	-	2	2	-	-	-	-	-	-	-	1	1	2	3	5	2	6	8	332.50	229.00	270.30
7. 15 & above	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	8	10	2	8	10	365.00	336.11	351.05
Total	6	8	14	30	18	48	21	13	34	50	41	91	34	27	61	88	76	164	229	183	412	220.03	226.74	223.09

Table - 3.8 : Employment Pattern of Workers Engaged in All Activities: Holding Sized Group-wise

Land Size Groups (acres)	Employment Days: Less than 50 days			50 - 100 days			100 - 150 days			150 - 200 days			200 - 250 days			250 and above days			Total			Average Employment days per worker		
	All-ahabad	Hamirpur	Combined	All-ahabad	Hamirpur	Combined	All-ahabad	Hamirpur	Combined	All-ahabad	Hamirpur	Combined	All-ahabad	Hamirpur	Combined	All-ahabad	Hamirpur	Combined	All-ahabad	Hamirpur	Combined	All-ahabad	Hamirpur	Combined
1. Landless	5	14	19	18	30	48	19	28	47	51	38	89	36	36	72	39	30	69	168	176	344	197.43	192.79	195.28
2. Less than 2.5	10	7	17	18	13	31	1	7	8	25	8	33	10	9	19	25	8	33	89	52	141	197.87	146.48	164.56
3. 2.5 - 5	34	18	52	42	44	86	30	27	57	33	31	64	12	12	24	32	15	47	183	147	330	170.72	174.45	171.59
4. 5 - 7.50	4	45	49	34	115	149	27	45	72	25	29	54	7	19	26	11	23	34	108	276	384	162.54	168.36	164.27
5. 7.50 - 10	2	26	28	5	85	90	6	41	47	16	44	60	3	16	19	-	12	12	32	224	256	171.08	186.76	181.39
6. 10 - 15	1	6	7	3	57	60	8	26	34	3	17	20	2	13	15	2	4	6	19	123	142	230.75	177.07	195.16
7. 15 & above	-	4	4	2	13	15	1	23	24	4	12	16	2	9	11	2	13	15	11	74	85	268.31	245.27	258.27
Total	56	120	176	122	357	479	92	197	289	157	179	336	72	114	186	111	105	216	610	1072	1682	182.15	175.76	176.34

Tabale - 3.9 : Total Temporary Migrants And Their Place of Migration: According to the Land Size Groups

(Number)

Land Size Groups (acres)	Place of Migration														
	Total Temporary migrants			Within the State (Rural)			Within the State (Urban)			Outside the State (Rural)			Outside the State (Urban)		
	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned
1. Landless	9	8	17	9	-	9	-	-	-	-	-	-	-	8	8
2. Less than 2.50	22	-	22	22	-	22	-	-	-	-	-	-	-	-	-
3. 2.50 - 5.00	15	4	19	1	-	1	14	4	18	-	-	-	-	-	-
4. 5.00 - 7.50	8	8	16	8	8	16	-	-	-	-	-	-	-	-	-
5. 7.50 - 10.00	2	-	2	-	-	-	-	-	-	-	-	-	2	0	2
6. 10.00 - 15.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7. 15.00 & above	0	2	2	0	0	0	0	2	2	0	0	0	0	0	0
Total	56	22	78	40	8	48	14	6	20	0	0	0	2	8	10

Table - 3.10 : Activities And Average Earnings of Temporary Migrants: According to Land size Groups

(Number)

Land Size groups (acres)	Agricultural Labour			Non-agricultural Labour			Construction			Transport			Service			Others			Average Earnings per worker(Rs.)		
	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined
1. Landless	-	8	8	8	-	8	-	-	-	-	-	-	-	-	-	1	0	1	780.00	765.00	1545.00
2. Less than 2.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	-	22	3600.00	0.00	3600.00
3. 2.50 - 5.00	-	4	4	11	-	11	4	-	4	-	-	-	-	-	-	-	-	-	4266.67	3600.00	7866.67
4. 5.00 - 7.50	-	-	-	8	8	16	-	-	-	-	-	-	-	-	-	-	-	-	2250.00	1320.00	3570.00
5. 7.50 - 10.00	-	-	-	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	3750.00	0.00	3750.00
6. 10.00-15.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00	0.00	0.00
7. 15 & above	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	0.00	4200.00	4200.00
Total	0	12	12	29	8	37	4	2	6	-	-	-	-	-	-	23	-	23	3137.86	1794.55	4932.41

Table - 3.11 : Total Permanent Migrants And Their Educational Level : According to Land Size Groups

(Number)

Land Size groups (acres)	Total Migrants			Illiterate			Upto 9th Standard			High School & Intermediate		
	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined
1. Landless	-	-	-	-	-	-	-	-	-	-	-	-
2. Less than 2.50	8	5	13	-	-	-	8	4	12	-	1	1
3. 2.50 - 5.00	27	4	31	-	-	-	4	1	5	23	3	26
4. 5.00 - 7.50	12	17	29	-	3	3	11	-	11	1	14	15
5. 7.50 - 10.00	1	5	6	-	-	-	-	5	5	1	0	1
6. 10.00-15.00	7	34	41	-	-	-	6	32	38	1	2	3
7. 15 & above	6	8	14	-	-	-	-	5	5	6	3	9
Total	61	73	134	-	3	3	29	47	76	32	23	55

Tabale - 3.12 : Total Permanent Migrants And Their Place of Migration : According to the Land Size Groups

(Number)

Land Size groups (acres)	Within the State (Rural)			Within the State (Urban)			Outside the State (Rural)			Outside the State (Uarban)		
	All-aha-bad	Ha-mi-rp-ur	Com-bin-ed	All-aha-bad	Ha-mi-rp-ur	Com-bin-ned	All-aha-bad	Ha-mi-rp-ur	Com-bin-ned	All-aha-bad	Ha-mi-rp-ur	Com-bin-ed
1. Landless	-	-	-	-	-	-	-	-	-	-	-	-
2. Less than 2.50	-	-	-	8	1	9	-	-	-	-	4	4
3. 2.50 - 5.00	-	-	-	14	1	15	3	-	3	10	3	13
4. 5.00 - 7.50	-	-	-	12	2	14	-	-	-	-	15	15
5. 7.50 - 10.00	-	-	-	1	-	1	-	-	-	-	5	5
6. 10.00-15.00	-	-	-	-	16	16	2	0	2	5	18	23
7. 15 & above	-	-	-	6	-	6	-	-	-	-	8	8
Total	-	-	-	41	20	61	5	0	5	15	53	68

Table - 3.13 : Permanent Migrants Employed In Different Activities : According to Land Size Groups

(Number)

Land Size groups (acres)	Agricultural labour			Non-agricultural labour			Business			Transport			Service			Construction			Others		
	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined
1. Landless	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Less than 2.50	-	1	1	5	2	7	-	-	-	-	-	-	2	-	2	-	1	1	1	1	2
3. 2.50 - 5.00	2	1	3	3	2	5	1	-	1	-	-	-	17	-	17	1	-	1	3	1	4
4. 5.00 - 7.50	-	-	-	3	10	13	-	-	-	-	-	-	6	4	10	1	1	2	2	2	4
5. 7.50 - 10.00	-	1	1	-	3	3	-	-	-	-	-	-	1	-	1	-	-	-	-	1	1
6. 10.00-15.00	-	-	-	2	20	22	1	2	3	-	-	-	3	2	5	-	10	10	1	-	1
7. 15 & above	-	-	-	-	-	-	1	1	2	-	-	-	3	5	8	-	-	-	2	2	4
Total	2	3	5	13	37	50	3	3	6	-	-	-	32	11	43	2	12	4	9	7	16

Table - 3.14 : Classification of Permanent Migrants In Different Income Groups And Their Average Remittances Per Year : According to Land Size Groups

(Number/Rs.)

Land Size groups (acres)	Below Rs.150			Rs.150-300			Rs.300-450			Rs.450-600			Rs.600 above			Average Remittances per year		
	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined	Allahabad	Hamirpur	Combined
1. Landless	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Less than 2.50	-	-	-	-	-	-	-	3	3	8	2	10	-	-	-	2500.00	1280.00	1875.00
3. 2.50 - 5.00	-	1	1	-	-	-	1	-	1	19	1	20	7	2	9	2950.00	2750.00	2866.89
4. 5.00 - 7.50	-	-	-	-	1	1	11	2	13	-	14	14	1	-	1	2400.00	2376.47	2288.24
5. 7.50 - 10.00	-	-	-	-	-	-	-	-	-	-	2	2	1	3	4	3600.00	3000.00	3250.80
6. 10.00-15.00	-	-	-	-	-	-	1	8	9	4	22	26	2	4	6	3890.70	3291.18	3591.94
7. 15 & above	-	-	-	-	-	-	-	-	-	6	5	11	-	3	3	3398.70	3218.90	3318.20
Total	-	1	1	-	1	1	13	13	26	37	46	83	11	12	23	3188.23	2742.76	2765.18

CHAPTER IV

AGRICULTURAL ECONOMY OF THE SAMPLE DISTRICTS

The foregoing chapters show agriculture as the main source of occupation, income and employment for the people belonging to the drought-prone districts of Allahabad and Hamirpur. It is, therefore, pertinant to discuss their agricultural economy. In this chapter, an attempt is made to present the case of agricultural economy based on the primary data collected from the sample households belonging to these two districts.

4.1 Land Relations

Land is the basic source of agricultural production and its allied activities. How land (whether owned or operated) is distributed among the sample households in these two districts, has infallible impact on their agricultural economy. Table 4.1 shows a highly skewed pattern of land distribution among the sample households in these two districts. The households with no owned land constituted about 33 per cent of the total number of households in Allahabad district; and 18.40 per cent of the total number of households in Hamirpur district. However, some of these households operated some land. The households with owning land upto 2.5 acres were 35.32 per cent of the total households in Allahabad district and they owned about 2 per

cent of the total owned area and operated a little more than 2 per cent of the total operated area in the district. Hamirpur district had such farm households constituting 15.37 per cent of the total number of households which owned 0.63 per cent of its total owned area but operated 1.60 per cent of its total operated area. The households owning land upto 5 acres were about 5 per cent of the total households in Allahabad district and these households owned 15.40 per cent of the total owned area and operated about 16 per cent of the total operated area. The households with the same land size constituted about 24 per cent of the total households in Hamirpur district, but they owned only 7.21 per cent of the total owned area and operated about 9 per cent of the total area. In this way, there were 83 per cent of the total number of households that owned 17.39 per cent of the total owned area and operated 18 per cent of the total operated area in the district. Similarly, such households constituted 57.24 per cent of the total number of households in Hamirpur district and they owned about 8 per cent of the total owned area and a little more than 10 per cent of the total operated area in the district. This means that about 17 per cent of the total households owned and operated more than three-fourth of the total owned and operated area in Allahabad district and about 43 per cent of the total number of households in Hamirpur district owned and operated not less than 90 per cent of the total owned and operated area in the district.

If the households owning land more than 10 acres only are considered, the same table indicates that they constituted only 8.33 per cent of the total households in Allahabad district but they owned not less than 40 per cent of total owned area in the district. Similarly, in Hamirpur district these households constituted about 24 per cent of its total households which owned and operated not less than 42 per cent of the total owned and operated area.

All this shows a highly skewed pattern of land distribution in the drought-prone districts of Allahabad and Hamirpur.

Table 4.1 also shows distribution of leased-in and leased-out area among different groups of farm households. In Allahabad district, the landless, marginal and small farm households cultivated leased-in area but the households with the holding size of upto 5 acres and upto 10 acres leased-out. In other words, all the leased-in area was cultivated by the farm households of the first three groups and 94.78 per cent of the leased-out area was from the households of the small holding category. But the case was quite different in Hamirpur disgtrict, because all categories of the land-owning farm households were found to have leased-out and to have cultivated leased-in area, except in the case of the first and last groups. A little more than 66 per cent of the total leased-in area was cultivated by the marginal, small and medium farm households. The rest of the total leased-in area was cultivated by those which owned 7.50 - 10.00 acres and 10 to 1.5 acres of holdings. A little more lthan 69 per cent of the

total leased-out area was from those categories of the households which owned marginal, small land medium holdiing sizes in Hamirpur district. The households owning 10 - 15 acres and 15 acres and above of land holdings leased-out about 16 per cent and 11 per cent of the total leased-out area in the district respectively. All this does show some characteristics about the magnitude of tenurial relations in the drought-prone districts. However, the following may be noted : firstly, the cultivation of leased-in area was prevalent more among the landless, marginal and small farm households in both districts.

4.2 Pattern of Land Use

The pattern of land use shows how some given amount of land as a natural resource is used by the man to realise material production in order to satisfy his basic needs for his reproduction. This also reflects harnessing of this natural resource for human existence and development. In this way, the pattern of land use which is primarily made for realising agricultural production, is closely related to agricultural economy of any agrarian area or space. Tabale 4.2 shows that most of the land had been in use for cultivation in the drought prone districts of Allahabad and Hamirpur. The percentage of area under cultivation to total area was 96.42 per cent in Allahabad district, 88.17 per cent in Hamirpur district and 91.59 per cent in both combined. The area under fallow land was 1.62 per cent in Allahabad and but it was about 6 per cent in Hamirpur district. This means that Hamirpur district had more scope to use land productively than what Allahanad

district had to do so. The proportion of the total area under pasture was about 6 per cent in Hamirpur district. It was negligible in Allahabad district. The proportion of the total area under plantation was as negligible as 0.24 per cent and 0.08 per cent in Allahabad and Hamirpur districts respectively. There was no area covered under orchards in Hamirpur district but about one per cent of total area was under orchards in Allahabad district.

The farm size-wise pattern of land use shows that the households belonging to all categories of land holding put not less than 93 per cent of their respective total areas in use for cultivation, except in case of those with the holding size of 15 acres and above in Hamirpur which had 72.49 per cent of their total area under cultivation. In fact, Table 4.2, by and large, shows that the smaller the size of land holding, the higher the proportion of total area under cultivation and so conversely. This also alternatively indicates that the larger the size of land holdings, the higher the proportion of total area under fallow land and so vice-a-versa. All this is true in respect of both districts. But comparatively, the households with bigger size of land holdings had higher proportion of the area under fallow in Hamirpur district than what their counterparts showed in Allahabad district. A similar case was found in respect of the total area under pasture in both districts. In Hamirpur district, the households with bigger size of land holdings had higher proportion of their total area under pasture than their

counterparts in Allahabad districyts. Only those households in these districts had some area under plantation and orchards which owned more than 5 acres of land. On the whole, the farm households had a major part of their total area under crop cultivation and a major part of their area was under fallow and pasture in both districts.

4.3 Cropping Pattern

The cereals were the major crops in the drought-prone districts which were grown on 77.42 per cent of the total cultivated area in Hamirpur district as against 81.55 per cent and 78.53 per cent of the total cultivated area in Allahabad district and both combined respectively. The area under pulses was 20.08 per cent of the total cropped area in Hamirpur district as against 12.61 per cent in Allahabad district and 18.02 per cent in both combined. The proportion of gross cultivated area under foodgrains in Hamirpur district was 97.50 per cent and it was 94.16 per cent in Allahabad district.

The area under non-food crops had been lower in Hamirpur district (2.50 per cent) than in Allahabad district with 5.84 per cent and 3.44 per cent in both combined. The farm size-wise cropping pattern, as presented in 4.3, indicates that the households belonging to all categories of land holdings cultivated foodgrain in most of their total area in both distrilcts - whether they are taken separately or together. The area under pulses that constituted about 13 per cent and 20 per cent of the total cropped ara in Hamirpur and Allahabad districts respectively, accupied soime significant part of the

total cropped area belonging to those households in these two districts that owned bigger size of land holdings there. The households with bigger size of land holdings had higher proportion of the total area as follow and pasture in the drought prone area. All this, thus, indicates that the area under foodgrains occupied the most significant place in the allocation of the total area among different crops and uses at the the inter-farm level in both districts.

4.4 Extent of Irrigated area

The drought-prone areas lack an assured supply of water for irrigation which is the most crucial input for crop cultivation. Table 4.4 shows that 56.45 of the total area under foodgrains was irrigated in Allahabad district; but the proportion of the total area irrigated under foodgrains was only 12 per cxent in Hamirpur district. There was, more or less, a similar position regarding the extent of total area irrigated under cereals in both districts. However, the same table presents a sumewhat different picture about the extent of the total area irrigated under pulses in these two districts. About 66 per cent of the total area under pulses was irrigatged in Allahabad district; while it was about 4 per cent in Hamirpur district. The extent of total area irrigated under non-foodgrains was about 36 per cent in Allahabad district and in Hamirpur district, it was 18 per cent.

Given the above situation in the drougnt-prone districts, the extent of irrigated area under different crops, by and large, shows that the bigger the size of land holdings, the

greater the extent of irrigated area under different crops land so inversely.

All this indicates that Allahabad district had more irrigation facilities than Hamirpur district; and the households with bigger holdings had more irrigated area under different crops than those with smaller holdings had irrigated area under different crops in the district.

The same table also shows that the extent of irrigated area to total area under cereals, pulses and foodgrains was more in largeer size of holdings than smaller one in both districts, barring with one or two exceptions. The extent of irrigated area under non-foodgrains does not present symmetrical picture.

4.5 Crop Yields

The level of crop yield per acre was found low in the drought-prone districts. Table 4.5 shows that the level of yield for cereals was 3.57 quintals per acre in Allahabad district and it was 1.98 quintals per acre in Hamirpur district. In this way, it was 2.44 quintals in both ccombined. But the yield of pulses was 4.14 quintals per acre in Hamirpur district which was slightly higher than that of 4.09 quintals as found in Allahabad district. On the whole, the pro-yield of foodgrains was found to be higher in Allahabad district (3.64 quintals) as against Hamirpur district (2.43 quintals). Such yield differentials, by and large, correspond to the differences in the extent of irrigated cropped area between these districts. The level of crop yield across different

holding sized groups, as shown in Table 4.5, also indicates the occurual of low yields to the households in both districts. But the relationship between yield and farm size had been inverse in the districts, with a few exceptions there. The yield differentials at the inter-farm level, however, did not seem to be corresponding to the differentials in the extent of irrigated cropped area across the different farm sized groups.

4.6 Sources of Irrigation

Given the level of irrigation, the canal was the main source in Allahabad district which was 73.55 per cent of its total irrigated area and 54.21 per cent in both combined. On the other hand, the tubewells and pumpsets were the most important sources of irrigation in Hamirpur district which accounted for more than half of its total irrigated area. The other source which made contribution to the irrigation in Allahabad district were the hired pumpsets (10.75 per cent), government tubewells (8.66 per cent), own pumpsets (3.73 per cent), hired tubewells (2.19 per cent), owned tubewells (0.67 per cent) and wells/persian wheels (0.45 per cent). Tabale 4.6 shows that in Hamirpur district the remaining sources of irrigation were canal that irrigated 33.14 per cent of its total irrigated area. In the same district, wells/persian wheels irrigated 3.04 per cent and 1.54 of its total irrigated area respectively. Neverthiless, the canal appeared to be a major source of irrigation in both districts taken together and then the tubewells and pumpsets followed there (see Table 4,6,7 and 8).

Given the extent of irrigated area by different sources of irrigation, the extent of irrigated area by the different sources of irrigation across different holding size-groups in these two districts shows that the bigger the size of holding, the greater the extent of irrigated area and so conversely whether it was the tubewells or pumpsets or canal, the households with bigger holding size irrigated more area than those with small holdings. This is what Tables 4.6,7 and 8, by and large, indicate. Briefly speaking, the canal was the major source of irrigation in Allahabad district, whereas the tubewells and pumpsets were the major source of irrigation in Hamirpur district and then the canal followed there. In both districts, the farm households with bigger holdings irrigated more than those with smaller holdings in these two districts.

4.7 Output and Sale

How much output is produced and how much of the produced output is left over consumption for sale in the market, are discussed here on the basis of primalry data collected from the sample households belonging to Allahabad and Hamirpur districts. In this connection, three major crops such as wheat, paddy and gram are taken into account.

Table 4.9, 10 and 11 show that (a) in both districts, wheat and paddy were sold more than their gross marketable surplus (i.e., production minus home consumption and other requirements) and their net marketable surplus (i.e. gross marketable surplus minus repurchases); and (b) both districts had not less thand 60 per cent of the total gram output as

gross or net marketable surplus and the whole surplus was sold out there. This means that in aggregative terms, the sale of wheat and paddy was more than their surplus in these two drought-prone districts, and the gram surplus as left over consumption of 40 per cent of its total output was actually sold out in these two districts. The first case shows the 'distress' sale of wheat and paddy in the districts but the sale of gram in relation to its surplus did not appear to be so there.

Table 4.9, 10 and 11 also presents an inter-farm level of output, marketable surplus and sale relating to wheat, paddy and gram in these two districts. Table 4.9 and 10 show that the households belonging to the first three categories of land holdings in both districts marketed a significant portion of their wheat and paddy output, despite having negative net marketable surplus. But those owning more than 7.5 acres of land holding did not go for distress sale because they had more than their home requirements, as their gross and net marketabale surplus for wheat and paddy indicates. Table 4.11 shows that gram, one of the important pulses was sold by the households of all categories. The sale of gram did not appear to be distressed one because the proportion of gram output as gross or net marketabale surplus was not only positive but it was also, by and large, equal to the proportion of sale to gram surplus output at the farm level in both districts. On an average, 40 per cent of total gram output was retained for home consumption and other requirements by the farm households in

Allahabad and Hamirpur districts. Table 4.11 shows that those with 15 acres and above, however, consumed less than this average leading to a higher proportion of marketable surplus in these two districts.

In barief, the drought-prone districts appear to be deficit areas in respect of wheat and paddy but surplus in respect of gram production.

4.8 Pattern of Marketing

The producers generally sold a major part of their produce outside the village to the mandies and govt procurement agencies. The proportions of marketed surplus of wheat and paddy disposed of outside the village were higher, i.e. 76.06 per cent and 77.84 per cent in Allahabad than in Hamirpur district, having 57.46 per cent and 76.45 per cent respectively. In this way, 61.76 per cent of wheat and about 78 per cent of paddy were marketed in both districts taken together; as Table 4.12 & 13 indicate. However, the percentage of gram surplus disposed outside the village was found to be higher (81.34 per cent) in Hamirpur district than in Allahabad district with 72.32 per cent as Table 4.14 shows. The sale of wheat and paddy by the producers within the village was higher in Hamirpur district than Allahabad district and the total sample. On the other hand, the producers of Allahabad district sold higher percentage of their gram surplus within the village than their counterparts in Hamirpur district. None of the households of Allahabad district sold wheat surplus to the government procurement agencies, while 9.20 per cent the total

wheat surplus was sold to the state agencies in Hamirpur district.

The farm households having smaller land holdings sold a substantially higher proportion of their wheat and paddy surplus within the village in Allahabad district, while the sample producers of Hamirpur district went outside the village for the sale of their major part of wheat surplus. In case of gram marketing, the small producers of Allahabad district sold a major share of their surplus outside the village, while the small producers of Hamirpur district sold a major part of their gram surplus within the village. The wheat marketing pattern of small producers belonging to Hamirpur district seemed to be better than their counterparts in Allahabad district, while the reverse was the case in gram marketing. The pattern of paddy marketing of small producers in Allahabad district needed improvement in the form of diversion of village level sale to the outside the village marketing. Though the overall marketing pattern of Hamirpur dfistrict in respect of wheat and paddy sale and that of Allahabad district in case of gram required improvement by way of minimising the village level sale. In general, the share of total surplus of wheat, paddy and gram sold within the village indicated decreasing trend with the increase in land size in the Allahabad, Hamirpur and in both combined.

Summary

The land based agricultural economy of the drought-prone districts shows that the distribution of land was highly skewed there, but more skewed in Hamirpur district than in Allahabad district. Most of the land available there had been in use for the cultivation of foodgrains. The pattern of leasehold shows that about 2 per cent and 10 per cent of the total operated area belonging to Allahabad and Hamirpur districts respectively was leased-in and the leased-out land constituted 0.07 per cent and 6 per cent of the their respective total owned areas in these two districts. The extent of irrigated area was found to low, but it was comparatively more in Allahabad than in Hamirpur district. The canal was the major source of irrigation in Allahabad, while tubewell plus pumpsets and tank were the major sources of irrigation in Hamirpur district. The yield levels of different crops such foodgrains, cereals and pulses were quite low in these two districts.

The agricultural economy of the drought-prone districts was basically subsistance one. These two districts appeared to be food-deficit in respect of wheat and paddy, but not in respect of gram. However, the farm households marketed a part of their wheat and paddy output but at the cost of home consumption, as most of them had distress sale. So far gram sale was concerned, it was not distressed.

The farm households marketed a major part of their surplus outside their villages mostly to the mandies. They also sold it to the traders within their villages. The sale of wheat and

paddy to the village traders was not less than 22 per cent of the total marketed produce.

All this presents a case of backward and subsistence agriculture in these two drought-prone districts.

Table 4.1: Distribution of Owned, Operated, Leased-in and Leased-out Area: Holding size-wise

(in p.c.)

Land size Group	Area Owned			Area Leased in			Area Leased Out			Operated Area			p.c. of Households in		
	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned
1. Landless	-	-	-	16.45	-	2.09	-	-	-	0.31	-	0.13	32.54	18.40	27.04
2. Less than 2.5	1.99	0.63	1.23	17.99	10.20	11.19	-	0.08	0.08	2.28	1.60	1.90	35.32	15.37	23.11
3. 2.5 - 5	15.40	7.21	10.84	35.81	25.03	26.40	94.48	10.22	11.02	15.72	8.78	11.81	14.68	23.68	20.18
4. 5 - 7.50	13.17	31.26	23.24	29.75	32.97	32.56	-	58.88	58.32	13.48	29.82	22.67	5.16	11.08	8.78
5. 7.50 - 10	29.04	18.60	23.23	-	9.98	8.2	5.52	4.25	4.27	28.53	18.59	22.94	3.97	7.54	6.02
6. 10 - 15	22.35	18.48	20.20	-	21.82	19.04	-	15.94	15.78	21.95	18.95	20.27	2.78	11.84	8.01
7. 15 & above	18.05	23.82	21.26	-	-	-	-	10.63	10.53	17.73	22.26	20.28	5.55	12.59	9.86
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Note: Operated Area = (owned Area - Leased-out + Leased-in)

Table 4.2 : Proportions of Total Area Under Different Land Uses : Holding Size-wise

(Percentage)

Land size Group	Percentage of Area under cultivation			Percentage of Area under Fellow			Percentage of Area under Pastures			Percentage of Area under Plantation			Percentage of area under orchards		
	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned
1. Less than 2.5	98.05	99.54	98.75	0.00	0.46	0.22	1.95	0.00	1.03	0.00	0.00	0.00	0.00	0.00	0.00
2. 2.50 - 5.00	99.82	99.82	99.82	0.18	0.18	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3. 5.00 - 7.50	96.73	97.46	97.27	2.36	2.26	2.29	0.59	0.28	0.36	0.00	0.00	0.00	0.32	0.00	0.08
4. 7.50 -10.00	95.13	91.73	93.55	2.45	4.16	3.24	1.59	4.12	2.76	0.83	0.00	0.45	0.00	0.00	0.00
5. 10.00-15.00	98.41	88.38	92.86	0.72	8.16	4.83	0.71	3.03	2.00	0.00	0.43	0.24	0.16	0.00	0.07
6. 15 & above	92.90	72.49	79.14	2.21	11.27	8.32	0.00	16.24	10.95	0.00	0.00	0.00	4.88	0.00	1.59
TOTAL	96.42	88.17	91.59	1.62	5.97	4.16	0.74	5.78	3.69	0.24	0.08	0.15	0.98	0.00	0.41

Table 4.3 : Proportions of Total Cultivated Area Under Cereals, Pulses, Foodgrains And Non-foodgrains of Sample Households : According to the Farm Size Groups

(Percentage)

Land size Group	Area under cereals			Area under pulses			Area under foodgrains			Area under non-foodgrains			Total Area		
	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned
1. Less than 2.50	90.22	94.52	92.06	9.78	2.64	6.73	100.00	97.16	98.79	0.00	2.84	1.21	100.00	100.00	100.00
2. 2.50 - 5.00	87.83	86.13	87.02	9.75	13.03	11.32	97.58	99.16	98.34	2.42	0.84	1.66	100.00	100.00	100.00
3. 5.00 - 7.50	84.07	85.02	84.73	13.11	14.11	13.80	97.18	99.13	98.53	2.82	0.87	1.47	100.00	100.00	100.00
4. 7.50 - 10.00	84.35	74.33	77.78	10.05	24.22	19.35	94.40	98.55	97.13	5.60	1.45	2.87	100.00	100.00	100.00
5. 10.00-15.00	81.15	72.67	74.68	11.64	23.91	21.01	92.79	96.58	95.69	7.21	3.42	4.31	100.00	100.00	100.00
6. 15 & above	69.70	78.70	77.01	19.82	18.13	18.45	89.52	96.83	95.46	10.48	3.17	4.54	100.00	100.00	100.00
TOTAL	81.55	77.42	78.53	12.61	20.08	18.03	94.16	97.50	96.56	5.84	2.50	3.44	100.00	100.00	100.00

Table 4.4 : Percentage of Irrigated Area To Total Area Under Cereals, Pulses, Foodgrains And Non-foodgrains : According to the Land Size Groups

Land size Group	Cereals			Pulses			Foodgrains			Non-foodgrains		
	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned
1. Lesas than 2.5	31.53	1.07	18.14	0.00	0.00	0.00	28.41	1.05	16.91	0.00	64.29	64.29
2. 2.50 - 5.00	56.02	5.94	32.31	27.55	0.00	12.38	53.78	5.16	30.02	82.34	0.00	62.36
3. 5.00 - 7.50	53.49	10.92	23.97	84.84	3.67	27.49	57.71	9.89	24.46	44.97	0.00	26.64
4. 7.50 - 10.00	57.93	13.18	29.18	16.83	3.74	6.08	53.56	10.86	25.14	20.85	27.03	22.89
5. 10.00-15.00	70.70	20.64	33.49	32.98	0.96	21.81	81.94	15.77	30.92	74.31	33.49	49.59
6. 15 & above	31.60	11.91	15.76	29.77	7.20	11.76	33.53	11.03	14.99	0.00	0.00	0.00
TOTAL	55.60	14.15	26.25	65.50	3.53	15.71	56.93	11.95	24.28	35.69	18.01	26.45

Table 4.5 : Crop Yields: Holding Size-wise

(Acre/Quintal)

Land size Group	Cereals			Pulses			Foodgrains		
	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned
1. Less than 2.50	3.25	3.08	3.18	9.11	7.54	8.85	3.82	3.21	3.56
2. 2.50 - 5.00	4.75	2.56	3.71	6.09	7.78	7.02	4.88	3.25	4.09
3. 5.00 - 7.50	3.92	2.95	3.25	4.97	5.05	5.03	4.06	3.25	3.50
4. 7.50 - 10.00	3.55	2.87	3.12	4.90	3.71	3.92	3.70	3.08	3.28
5. 10.00-15.00	3.17	1.64	2.04	3.17	3.57	3.52	3.17	2.12	2.36
6. 15 & above	2.85	1.18	1.46	2.65	4.55	4.16	2.80	1.81	1.98
TOTAL	3.57	1.98	2.44	4.09	4.14	4.13	3.64	2.43	2.76

Table 4.6 : Proportions of Total Irrigated Area By Different Sourvces In Allahabad District : According to the Farm Size Groups

(Percentage)

Land size group	Well/ Persian Well	Own Tubewell	Govt. Tubewell	Hire Tubewell	Own Pumpset	Hired Pumpset	Canal	Tank	Other Dam/ Charkha	Total Irrigated Area
1. Less than 2.50	2.99	0.00	15.92	0.00	0.00	26.11	54.98	0.00	0.00	100.00
2. 2.50 - 5.00	0.00	0.00	16.38	1.37	1.92	24.07	56.26	0.00	0.00	100.00
3. 5.00 - 7.50	0.00	0.00	0.00	13.17	0.00	3.94	82.89	0.00	0.00	100.00
4. 7.50 - 10.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.00	0.00	100.00
5. 10.00-15.00	0.00	0.00	29.33	0.00	0.00	10.95	59.72	0.00	0.00	100.00
6. 15 & above	0.00	2.25	0.00	0.00	11.27	0.00	86.48	0.00	0.00	100.00
TOTAL	0.45	0.67	8.66	2.19	3.73	10.75	73.55	0.00	0.00	100.00

Tabale 4.7 : Proportions of Total Irrigated Area By Different Sources in Hamirpur District: According to the Farm Size Groups

(Percentage)

Land size group	Well/ Persian Well	Own Tubewell	Govt. Tubewell	Hire Tubewell	Own Pumpset	Hired Pumpset	Canal	Tank	Other Dam/ Charkha	Total Irrigated Area
1. Less than 2.50	36.55	0.00	12.69	0.00	0.00	0.00	46.53	4.23	0.00	100.00
2. 2.50 - 5.00	0.00	0.00	45.83	9.73	0.00	9.73	21.73	12.98	0.00	100.00
3 5.00 - 7.50	9.54	0.00	18.89	0.00	16.70	0.00	54.87	0.00	0.00	100.00
4. 7.50 - 10.00	1.88	18.81	56.25	0.00	3.76	0.00	19.30	0.00	0.00	100.00
5. 10.00-15.00	2.14	14.25	48.53	0.00	2.85	0.00	32.23	0.00	0.00	100.00
6. 15 & above	1.83	11.57	36.53	0.00	14.05	0.00	35.20	0.00	0.82	100.00
TOTAL	3.04	10.53	40.68	1.09	8.53	1.09	33.14	1.54	0.36	100.00

Table 4.8 : Proportions of Total Irrigated Area By Different Sources in Both the Districts: According to the Farm Size Groups

(Percentage)

Land size group	Well/ Persian Well	Own Tubewell	Govt. Tubewell	Hire Tubewell	Own Pumpset	Hired Pumpset	Canal	Tank	Other Dam/ Charkha	Total Irrigated Area
1. Less than 2.50	6.87	0.00	15.55	0.00	0.00	23.09	54.00	0.49	0.00	100.00
2. 2.50 - 5.00	0.00	0.00	26.10	4.13	1.29	19.33	44.87	4.28	0.00	100.00
3. 5.00 - 7.50	3.11	0.00	6.16	8.88	5.44	2.65	73.76	0.00	0.00	100.00
4. 7.50 - 10.00	0.89	8.87	26.53	0.00	1.78	0.00	61.93	0.00	0.00	100.00
5. 10.00-15.00	1.51	10.06	42.89	0.00	2.01	3.22	40.31	0.00	0.00	100.00
6. 15 & above	1.05	7.63	21.08	0.00	12.88	0.00	56.88	0.00	0.48	100.00
TOTAL	1.69	5.39	23.99	1.66	6.03	6.12	54.21	0.74	0.17	100.00

Table 4.9 : Wheat Output , Surplus and Sale : Farm Size-wise (in quintals)

l size oup	Production			Marketing Surplus			Repurchases			Net Marketable Surplus			Sale		
	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned
ess than 2.50	281.16 (100.00)	184.47 (100.00)	465.63 (100.00)	-11.83 (-4.21)	1.35 (0.73)	-10.48 (-2.25)	50.58 (17.99)	18.82 (10.20)	69.40 (14.90)	-62.41 (-22.20)	-17.47 (-9.47)	-79.88 (-17.16)	38.75 (13.78)	20.17 (10.93)	58.92 (12.65
2.5 - 5.00	205.45 (100.00)	553.20 (100.00)	758.65 (100.00)	-28.72 (-13.98)	-88.57 (-16.01)	-117.29 (-15.46)	73.57 (35.81)	138.47 (25.03)	212.04 (27.95)	-102.29 (-49.79)	-227.04 (-41.04)	-329.33 (-43.41)	44.85 (21.83)	49.90 (9.02)	94.75 (12.49
5.00-7.50	152.70 (100.00)	315.80 (100.00)	468.50 (100.00)	18.76 (12.29)	-32.62 (-10.33)	-12.86 (-2.96)	45.43 (29.75)	104.12 (32.97)	149.55 (31.92)	-26.67 (-17.47)	-136.74 (-43.30)	-163.41 (-34.88)	64.19 (42.04)	71.50 (22.64)	135.69 (28.96
7.5-10.00	123.35 (100.00)	363.50 (100.00)	486.85 (100.00)	46.57 (33.75)	99.32 (27.32)	145.89 (29.97)	-	36.28 (9.98)	36.28 (7.45)	46.57 (37.75)	63.04 (17.34)	109.61 (22.51)	46.57 (37.75)	135.60 (37.30)	182.17 (37.42
10.00-5.00	134.00 (100.00)	847.40 (100.00)	981.40 (100.00)	45.30 (33.81)	230.30 (27.18)	275.60 (28.08)	-	-	-	45.30 (33.81)	230.30 (27.18)	275.60 (28.08)	45.30 (33.81)	230.30 (27.18)	275.60 (28.08
15 & above	355.00 (100.00)	1621.25 (100.00)	1976.25 (100.00)	146.75 (41.34)	807.65 (49.82)	954.40 (48.29)	-	-	-	146.75 (41.34)	807.65 (49.82)	954.40 (48.29)	146.76 (41.34)	807.65 (49.82)	954.41 (48.29
OTAL	1268.66 (100.00)	3885.62 (100.00)	5154.28 (100.00)	223.03 (17.58)	1017.43 (26.18)	1240.46 (24.07)	172.38 (13.59)	297.69 (7.66)	470.07 (9.12)	50.65 (3.99)	19.74 (18.52)	770.39 (14.95)	395.42 (31.17)	1315.12 (33.85)	1710.54 (33.1

Figures in Parenthesis refer to percentages

Table 4.10 : Paddy Output Marketing Surplus and Sale : Farm-wise (in quintals)

l size up	Production			Marketing Surplus			Repurchases			Net Marketable Surplus			Sale		
	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned
.ess than 2.50	197.93 (100.00)	1.20 (100.00)	199.13 (100.00)	2.44 (1.23)	-0.12 (-10.00)	2.32 (1.16)	35.61 (17.99)	0.12 (10.00)	35.73 (17.94)	-33.17 (-16.75)	-0.24 (-20.00)	-33.41 (-16.77)	38.05 (19.22)	-	38.05 (19.11
2.5-5.00	213.48 (100.00)	4.20 (100.00)	217.68 (100.00)	-22.07 (-10.33)	-1.05 (-25.00)	-23.12 (-10.62)	76.45 (35.81)	1.05 (25.00)	77.50 (35.60)	-98.52 (-46.14)	-2.10 (-50.00)	-100.62 (-46.22)	54.38 (25.47)	-	54.38 (24.98
5.00-7.50	120.13 (100.00)	-	120.13 (100.00)	7.04 (5.86)	-	7.04 (5.86)	35.74 (29.75)	-	-35.74 (29.75)	-28.70 (-23.89)	-	-28.70 (-23.89)	42.78 (35.61)	-	42.7 (35.61
7.50-10.00	191.00 (100.00)	-	191.00 (100.00)	79.86 (41.81)	-	79.86 (41.81)	-	-	-	79.86 (41.81)	-	79.86 (41.81)	79.86 (41.81)	-	79.86 (41.81
10.00-15.00	133.00 (100.00)	-	133.00 (100.00)	33.85 (25.45)	-	33.85 (25.45)	-	-	-	33.85 (25.45)	-	33.85 (25.45)	33.85 (25.45)	-	33.85 (25.45
15 & above	416.00 (100.00)	30.25 (100.00)	446.25 (100.00)	209.20 (50.28)	18.05 (59.66)	227.25 (50.92)	-	-	-	209.20 (50.28)	18.05 (59.66)	227.25 (50.92)	209.20 (50.29)	18.05 (59.67)	227.25 (50.92
TOTAL	1284.54 (100.00)	35.65 (100.00)	1320.19 (100.00)	312.68 (24.41)	16.88 (47.34)	330.5 (25.03)	149.94 (11.7)	1.17 (3.28)	151.11 (11.45)	163.74 (12.74)	15.71 (44.06)	179.45 (13.59)	463.62 (36.09)	18.05 (50.63)	481.67 (36.48

Figures in parentheses refer to percentages.

Table 4.11 : Gram Output, Marketable Surplus and Sale: Farm-wise (in quintals)

Land size Group	Production			Marketing Surplus			Net Marketable Surplus			Sale		
	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned
1. Less than 2.5	32.65 (100.00)	31.70 (100.00)	64.35 (100.00)	13.20 (40.42)	12.20 (38.40)	25.40 (39.47)	13.20 (40.42)	12.20 (38.40)	25.40 (39.47)	13.20 (40.43)	12.20 (38.49)	25.40 (39.47)
2. 2.5-5.00	36.52 (100.00)	154.30 (100.00)	190.82 (100.00)	18.62 (50.92)	73.88 (47.88)	92.50 (48.47)	18.62 (50.98)	73.88 (47.88)	92.50 (48.47)	18.62 (50.98)	73.88 (47.88)	92.50 (48.48)
3. 5.00-7.50	15.00 (100.00)	1513.90 (100.00)	168.90 (100.00)	9.30 (62.00)	84.45 (54.87)	93.75 (55.50)	9.30 (62.00)	84.45 (54.87)	93.75 (55.50)	9.30 (62.00)	84.45 (54.87)	93.75 (55.51)
4. 7.5-10.00	28.00 (100.00)	140.00 (100.00)	168.00 (100.00)	17.74 (63.35)	81.15 (57.96)	98.89 (58.86)	17.74 (63.35)	81.15 (57.96)	98.89 (58.86)	17.74 (63.36)	81.15 (57.97)	98.89 (58.86)
5. 10.00-15.00	20.12 (100.00)	240.833 (100.00)	260.95 (100.00)	12.62 (62.72)	138.95 (57.69)	151.57 (58.08)	12.62 (62.72)	138.95 (57.69)	151.57 (58.08)	12.62 (62.73)	138.95 (57.70)	151.57 (58.08)
6. 15 & above	141.00 (100.00)	697.50 (100.00)	838.50 (100.00)	99.35 (70.76)	465.16 (66.68)	564.51 (67.32)	99.35 (70.46)	465.16 (66.68)	564.51 (67.32)	99.35 (70.46)	465.16 (66.69)	564.51 (67.32)
TOTAL	273.29 (100.00)	1419.53 (100.00)	1692.82 (100.00)	170.83 (62.50)	856.34 (60.32)	1027.17 (60.67)	169.55 (62.04)	855.34 (60.25)	1024.89 (60.53)	170.83 (62.51)	856.34 (60.32)	1027.17 (60.68)

Figures in parentheses refer to percentages

Note: No repurchases were found.

Table 4.12 : Pattern of Wheat Marketing : Farm-wise (in p.c.)

Land size Group	Government Agencies			Within the Village			Outside the Village			Total		
	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned
1. Less than 2.50	0.00	0.00	0.00	56.72	12.89	41.72	43.28	87.11	58.28	100.00	100.00	100.00
2. 2.50-5.00	0.00	30.06	15.83	49.50	34.07	41.37	50.50	35.87	42.80	100.00	100.00	100.00
3. 5.00-7.50	0.00	0.00	0.00	17.06	25.17	21.34	82.94	74.83	86.66	100.00	100.00	100.00
4. 7.50-10.00	0.00	8.11	6.04	21.47	38.06	33.81	78.53	53.83	60.15	100.00	100.00	100.00
5. 10.00-15.00	0.00	0.00	0.00	19.87	39.73	36.47	80.13	60.27	63.53	100.00	100.00	100.00
6. 15 & above	0.00	11.76	9.95	9.91	31.92	28.53	90.09	56.32	61.52	100.00	100.00	100.00
TOTAL	0.00	9.20	7.07	23.94	33.34	31.17	76.06	57.46	61.76	100.00	100.00	100.00

Tabale 4.13 : Pattern of Paddy Marketing : Farm Size-wise (in p.c.)

Land size Group	Within the village			Outside the Village			Total		
	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned
1. Less than 2.50	49.41	0.00	49.41	50.59	0.00	50.59	100.00	0.00	100.00
2. 2.50-5.00	58.85	0.00	58.85	41.15	0.00	41.15	100.00	0.00	100.00
3. 5.00-7.50	3.32	0.00	3.32	96.68	0.00	96.68	100.00	0.00	100.00
4. 7.50-10.00	12.52	0.00	12.52	87.48	87.48	87.48	100.00	0.00	100.00
5. 10.00-15.00	0.00	0.00	0.00	100.00	0.00	100.00	100.00	0.00	100.00
6. 15 & above	16.73	23.55	17.27	83.27	76.45	82.83	100.00	100.00	100.00
TOTAL	22.16	23.55	22.21	77.84	76.45	77.79	100.00	100.00	100.00

Note: No sale to Group Agencies

Table 4.14 : Pattern of Gram Marketing According to the Farm Size Groups
(in p.c.)

Land size Group	Within the village			Outside the Village			Total		
	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned	Alla-habad	Hamir-pur	Combi-ned
1. Less than 2.50	21.21	85.25	51.97	78.79	14.75	48.03	100.00	100.00	100.00
2. 2.50-5.00	34.91	51.27	47.98	65.09	48.73	52.02	100.00	100.00	100.00
3. 5.00-7.50	70.97	17.17	22.51	29.03	82.83	77.49	100.00	100.00	100.00
4. 7.50-10.00	88.73	19.10	31.59	11.27	80.90	68.41	100.00	100.00	100.00
5. 10.00-15.00	23.77	15.83	6.49	76.23	84.17	83.51	100.00	100.00	100.00
6. 15 & above	12.73	12.68	12.69	87.27	87.32	87.31	100.00	100.00	100.00
TOTAL	27.68	18.66	20.16	72.32	81.34	79.84	100.00	100.00	100.00

Note: No sale to Government Agencies

CHAPTER V

INCOME, EXPENDITURE AND LIABILITIES

The purpose of this chapter is to discuss the socio-economic conditions of the farm households in the drought-prone districts of Allahabad and Hamirpur in U.P. Their socio-economic conditions are examined on the basis of income they generate, expenditure they make on various heads and the liabilities they owe in terms of loan payment.

The total income of a sample household has been arrived here by taking into account the income from aricultural products and its bye-products minus cost of cultivation involved plus the income from non-agricultural work, service, business, household industry and sale proceeds from animal husbandry. The total expenditure is arrived at by adding the expenditure on cereals and other food and non-food items as well as the expenditure incurred on housing, education, religion, litigation, entertainment and social ceremonies and functions. The liabilities of a household are examined in terms of any amount of loans taken by the household for any purpose. Thus the main features of income generation, expenditure pattern and liabilities relating to farm households across different holding groups are also examined in this chapter.

5.1 Income Per Capita and Per Household

The sample data yielded Rs.5608.84 annual income per household Rs.5608.84 in Allahabad district, Rs.8360.11 in

Hamirpur district and Rs.7264.11 in both districts taken together. The annual income per household was higher in Hamirpur district than that in Allahabad district because of the appearance of relatively a large number of the farm households with owning land holding size of 10 acres and above in Hamirpur district which produced high valued pulses in its selected villages. As a result, the income per household was pushed up above in both districts taken together. It is self-evident from Table 5.1 that the bigger the holding size, the higher the income per household in both districts taken separately or together and vice-versa.

The pattern of income generation at household level also reflected in the per capita annual income. The per capita income had come Rs.1303.09 in Hamirpur district as against Rs.969.43 in Allahabad district and Rs.1177.13 in both districts combined. In the landless class and the holding size-groups of 2.50 acres to 5.00 acres and 7.50 acres to 10 acres, per capita income had been higher in Allahabad district than what is obtained in Hamirpur district and both districts taken together. The per capita income in remaining groups of land holding was found to be higher in Hamirpur than in Allahabad or in both districts taken together.

5.2 Range of Income and Distribution of Households

The total households of Allahabad, Hamirpur and both the districts combined were classified in different income groups across the all size-groups of land holdings (Table 5.2). The frequency distribution of households thus indicates that about

51 per cent of the total households in Allahabad, 36.27 per cent of the total households in Hamirpur and 42.37 per cent of the total households in both districts combined had an income of less than Rs.4000 per annum. Some 18 per cent of the total households earned an annual income in the range of Rs.4000-6000 in each of these three spatial divisions. The households with the annual income of Rs.6000-10000 were more in Hamirpur district (22.17 per cent) than in Allahabad (16.66 per cent). In both districts taken together, the proportion of the total households was 20 per cent in the same range income group. Similarly the percentage of total households recording annual income of Rs.10.000 and above was 23.17 in Hamirpur, 14.29 per cent in Allahabad and about 20 per cent in these two combined districts.

The proportion of total landless households with the annual income of less than Rs.4000 constituted 60.76 per cent in Allahabad district, 74.32 per cent in Hamirpur district and 66.67 per cent in both combined. The farm households with upto 2.50 acres of holding size were 66.29 per cent, 62.30 per cent and 64.67 per cent were in the annual inccome range of upto Rs.4000 belonging to Allahabad, Hamirpur and both combined respectively. No households with the holding size of 15 acres and above were found in this income range in any of these two districts. The proportion of those in the category of 10.00 to 15.00 acres was not more than 2 per cent in this income range in these districts. The farm households with the holding size of 2.50 to 5.00 acres were about 11 per cent, about 32 per cent and 22 per cent of their total numbers in the same income range

belonging to Allahabad, Hamirpur and both combined respectively. Only about 2 per cent, 7 per cent and about 5 per cent of the farm households with holding size of 5.00 to 7.50 acres belonging to Allahabad, Hamirpur and both combined respectively were in the income range of upto Rs.4000. On the whole, the proportion of total households in the high income ranges was higher in Hamirpur district relatively to the Allahabad district except the landless class, the majority of which (74.32 per cent) earned an income of less than Rs.4000 in Hamirpur district.

5.3 Expenditure and Poverty

The annual expenditure per household had been Rs.5493.20 in Allahabad distrist as against Rs.8164.09 in Hamirpur district and Rs.6598.33 in both districts taken together (Table 5.3). The average expenditure per household indicated an increasing trend from Rs.3067.04 and Rs.3691.99 in case of landless households to Rs.22537.23 and Rs.20828.76 belonging to those with the land holdings of 15 acres and above in Hamirpur district and the combined sample. Thus, the same table shows a wide range of variation in the inter-farm level of annual consumption expenditure in these two districts.

The annual per capita expenditure turned out to be Rs.949.44 in Allahabad district, Rs.1272.54 in Hamirpur district and Rs.1154.92 in the aggregate sample. Besides higher per capita expenditure in Hamirpur district, it indicated positive relationship with land size there; whereas

in Allahabad district and the total sample, this trend did not exist clearly.

If the per capita annual expenditure of less than Rs.759.60, as recommended by the Sixth Five Year Plan of U.P. (1980-85), is taken into account as a cut off point of estimating the population below the poverty line during 1979-80, then with the price increase of 7.32 per cent in 1980-81 and 1981-82; this cut off point went up to Rs.874.92 during 1981-82, the year to which our sample data pertained. Thus the population in the rural areas of U.P. with a per capita annual expenditure of Rs.874.92 in 1981-82 could be considered as the one living below the poverty line. Considering this criterion, all the landless households which constituted 32.54 per cxent, 15.37 per cent and 24.04 per cent of the total sample households of Allahabad, Hamirpur and both the districts taken together respectively were living below the poverty line. Similarly, all the households who owned marginal holdings (less than 2.50 acres) had 35.32 per cent, 15.37 per cent and 23.12 per cent of total households of Allahabad, Hamirpur and their total sample respectively below the poverty line.. Thus, roughly 67.84 per cent of the total households of Allahabad district, 34.01 per cent of the total households of Hamirpur district and 47.16 per cent of the total households of both districts estimated to be living below the poverty line. The proportion of total population living below the poverty line may come out slightly higher in all the three places if household-wise per capita annual expenditure is taken into account.

5.4 Household Saving

The income saved by the households in both distsricts was found to be very low. After substracting all the annual expenditures from the total annual income like the expenses on food and non-food items, durables, education, medical and social necessities, etc. the amount saved per household was Rs.150.73 in Hamirpur distrist against Rs.115.65 in Allahabad district and Rs.126.94 in the aggregate sample (Table 5.4). As a result, the percentage of income saved to total income had been higher (2.70 per cent) in Hamirpur district than the same in Allahabad district (2.07 per cent) and the total sample (1.89 per cent). In certain class of land holdings like the households who were landless but operated leased-in land in Allahabad, Hamirpur and the total sample and those with land holdings of 2.50 - 5.00 acres in Allahabad district and total sample reported negative savings. The savings by large farm households, i.e. 10 acres and above were highest among all types of households in these districts. The same category of farm households in Allahabad district, however, saved much more than their counterparts in Hamirpur district and both combined. The position of household saving across the farm size-groups also verifies the case of poverty that prevails among the landless, marginal and small farm households.

5.5 Indebtedness

How many rural households are indebted and for which purpose those indebted take loan from different agencies, characterise not only the nature and form of rural indebtedness

but also reflect their socio-economic condition. The sample households reported the extent of indebtedness and the purpose for which the loan was obtained, i.e. productive and unproductive. The primary data indicated that 45.24 per cent of the total households in Allahabad district, 45.85 per cent of the total in Hamirpur district and 42.32 per cent of the total households in both combined were indebted. Out of these indebted households, 31.75 per cent in Allahabad district, 28.97 per cent in Hamirpur district and 27.82 per cent in total sample secured loans for productive purposes. But only 13.50 per cent of the total indebted households of Allahabad district, 16.88 per cent of total indebted households in Hamirpur district and 14.41 per cent of the total indebted used the loans for productive purpose (see Table 5.5). The dimension of indebtedness was higher among the households with smaller holdings than among those with bigger holdings in these districts, barring some exception there.

Of the total loans taken for different purposes, 70.18 per cent of the total indebted households in Allahabad district, 63.19 per cent of the indebted households in Hamirpur district and 65.88 per cent of the total indebted households in the aggregate sample used the loan for unproductive purposes like consumption, religious and social functions and litigation, etc. The percentage of households using loans for unproductive purposes was highest among the households with smaller holdings. About 87 per cent of the total landless indebted households in Allahabad district, 94.60 per cent of the indebted landless households in Hamirpur district and 90.25

per cent of the total indebted landless households utilized the loans for unproductive purposes. On the contrary, only 25 per cent of the indebted households in Allahabad district, 10 per cent of such households in Hamirpur district and 12.50 per cent of the total indebted in both combined households with land size of 15 acres and above reported to heavy use of their loans for unproductive purposes.

So far the utilisation pattern of the amount of loans is concerned, Table 5.6 shows that 46 per cent of the total amount of loans was utilised for unproductive purpose in Allahabad district and 25 per cent in Hamirpur district. The farm size-wise pattern of utilisation of loan shows that the households with no owned land, and with holding size of upto 5 acres used a major part of their respective loans for unproductive purposes in both districts, i.e. Allahabad and Hamirpur. Table 4.6 shows that the households with holding size of more than 5 acres used a major part of their respective loans for productive purposes in the drought-prone district, barring an exception of those which owned holding size of from 10 to 15 acres. The households belonging to the farm size-group of 7.50 to 10.00 acres utilised the whole amount of loan only for productive purpose in Allahabad district, while those in the same group belonging to Hamirpur used about three-fourth of their total amount for productive purpose.

All this shows that a large number of the sample households were indebted. The landless marginal and small households were mostly indebt for unproductive purposes.

5.6 Concluding note

A close and positive relationship was by and large found between the level of income per household or per capita and size of land holding. The households with bigger holdings had higher level of income per household or per capita than what those with smaller holdings were found in the sample districts. The level of income per household and per capita varied from Rs.4223 and 864 in case of the landless category to Rs.16320 and Rs.1987 in the case of the holding category of 15 acres and above in Allahabad district. Such income variation was also found in Hamirpur district. Most of the landless, marginal and small households were in the per household income group of upto Rs.4000 in both districts with a few exception. As a result, most of them were found below the poverty line. In this way, it was found that the proportion of the total households below the poverty line was about 68 per cent and 34 per cent in Allahabad and Hamirpur district respectively. Given this condition, many of households which were landless and owned marginal and small size of holdlings had negative or negligible saving-income ratio.

A large number of the sample households were also found to be indebted. Those which were landless, and owned marginal and small holdings were indebted because they had taken loans for consumptive purposes.

All this indicates how the households are economically positioned in the drought-prone areas.

Table - 5.1 : Per Household And Per Capita Income of Sample Households

Land Size Group (acres)	Income per household			Income per capita		
	Allaha-bad	Hamir-pur	Combi-ned	Allaha-bad	Hamir-pur	Combi-ned
1. Landless	4223.04	3039.15	3661.45	863.56	606.19	744.70
2. Less than 2.50	3810.97	3851.64	3827.51	679.71	731.93	700.16
3. 2.50 - 5.00	6107.51	5676.47	5798.21	1051.06	909.01	959.05
4. 5.00 - 7.50	8851.07	6895.90	7341.82	1494.33	1018.19	1134.10
5. 7.50 - 10.00	6880.21	9014.04	8466.90	929.76	1307.04	1205.14
6. 10.00- 15.00	12806.15	12756.83	12763.47	1164.20	1599.04	1554.33
7. 15.00 & above	16319.68	23373.22	21830.26	1986.74	2644.03	2512.84
Total	5608.84	8360.11	7264.11	969.43	1303.09	1177.13

Table - 5.2 : Distribution of Households According to Different Income Groups and Farm Size-Groups

(Household)

Districts	Land Size Group							
	Landless	less than 2.50	2.50-5.00	5.00-7.50	7.50-10.00	10.00-15.00	15 & above	Total
1. Below 1500								
Allahabad	7 (8.53) (35.00)	8 (8.99) (40.00)	2 (5.41) (10.00)	1 (7.69) (5.00)	2(20.00) (10.00)	--	--	20 (7.94) (100.00)
Hamirpur	11(14.87) (47.83)	5 (8.20) (21.74)	4 (4.26) (17.39)	1 (2.27) (4.35)	--	2 (4.44) (8.69)	--	23 (5.79) (100.00)
Combined	18(11.54) (41.86)	13 (8.67) (30.24)	6 (4.58) (13.95)	2 (3.50) (4.65)	2 (5.13) (4.65)	2 (3.85) (4.65)	--	43 (6.83) (100.00)
2. 1500-2500								
Allahabad	19(23.17) (42.22)	18(20.23) (40.00)	6(16.21) (13.34)	1 (7.69) (2.22)	1(10.00) (2.22)	--	--	45(17.86) (100.00)
Hamirpur	26(35.14) (50.00)	13(21.31) (25.00)	9 (9.57) (17.31)	3 (6.82) (5.77)	--	--	1 (2.00) (1.92)	52(13.10) (100.00)
Combined	45(28.85) (46.40)	31(20.66) (31.96)	15(11.45) (15.46)	4 (7.02) (4.12)	1 (2.56) (1.03)	--	1 (1.36) (1.03)	97(14.95) (100.00)
3. 2500-4000								
Allahabad	23(28.06) (35.94)	33(37.07) (51.56)	7(18.92) (10.94)	1 (7.69) (1.56)	--	--	--	64(25.39) (100.00)
Hamirpur	18(24.32) (26.09)	20(32.79) (28.99)	22(23.40) (31.88)	5(11.36) (7.25)	3(10.35) (4.35)	1 (2.22) (1.44)	--	69(17.38) (100.00)
Combined	41(26.28) (30.83)	53(35.33) (39.85)	29(22.14) (21.80)	6(10.53) (4.51)	3 (7.69) (2.26)	1 (1.92) (0.75)	--	133(20.49) (100.00)

(Contd...)

(Table 5.2 Contd..)

Districts	Land Size Group							
	Landless	less than 2.50	2.50-5.00	5.00-7.50	7.50-10.00	10.00-15.00	15 & above	Total
4. 4000-6000								
Allahabad	14(17.07) (31.11)	16(17.98) (35.36)	10(27.02) (22.22)	4 (30.77) (8.89)	1(10.00) (2.22)	--	--	45(17.86) (100.00)
Hamirpur	12(16.22) (16.44)	9(14.75) (12.33)	30(31.92) (41.10)	11 (25.00) (15.07)	4(13.79) (5.47)	6(13.33) (8.22)	1 (2.00) (1.37)	73(18.39) (100.00)
Combined	26(16.67) (22.03)	25(16.67) (21.19)	40(30.53) (33.90)	15 (26.32) (12.71)	5(12.82) (4.24)	6(11.54) (5.08)	1 (1.56) (0.85)	118(18.18) (100.00)
5. 6000-10000								
Allahabad	13(15.85) (30.96)	11(12.36) (26.19()	6(16.22) (14.29)	3 (23.08) (7.14)	3(30.00) (7.14)	4(57.14) (9.52)	2(14.29) (4.76)	42(16.66) (100.00)
Hamirpur	7 (9.45) (7.95)	14(22.95) (15.91)	22(23.40) (25.00)	18 (40.91) (20.46)	13(44.83) (14.77)	11(24.45) (12.50)	3 (6.00) (3.41)	88(22.17) (100.00)
Combined	20(12.82) (15.38)	25(16.67) (19.23)	28(21.37) (21.54)	21 (36.84) (16.15)	16(41.03) (12.31)	15(28.85) (11.54)	5 (7.81) (3.85)	130(20.03) (100.00)
6. 10000 +								
Allahabad	6 (7.32) (16.67)	3 (3.37) (8.33)	6(16.22) (16.67)	3 (23.08) (8.33)	3(30.00) (8.33)	3(42.86) (8.33)	12(85.71) (33.34)	36(14.29) (100.00)
Hamirpur	--	--	7 (7.45) (7.61)	6 (13.64) (6.52)	9(31.03) (9.78)	25(55.56) (27.18)	45(90.00) (48.91)	92(23.17) (100.00)
Combined	6 (3.84) (4.69)	3 (2.00) (2.34)	13 (9.93) (10.16)	9 (15.79) (7.02)	12(30.77) (9.38)	28(53.84) (21.88)	57(89.07) (44.53)	128(19.72) (100.00)

(Contd...)

(Table 5.2 Contd..)

Districts	Land Size Group							
	Landless	less than 2.50	2.50-5.00	5.00-7.50	7.50-10.00	10.00-15.00	15 & above	Total
7. Total								
Allahabad	82(100.00) (32.54)	89(100.00) (35.32)	37(100.00) (14.68)	13(100.00) (5.16)	10(100.00) (3.97)	7(100.00) (2.78)	14(100.00) (5.55)	252(100.00) (100.00)
Hamirpur	74(100.00) (18.64)	61(100.00) (15.37)	94(100.00) (23.68)	44(100.00) (11.08)	29(100.00) (7.31)	45(100.00) (11.33)	50(100.00) (12.59)	397(100.00) (100.00)
Combined	156(100.00) (24.04)	150(100.00) (23.11)	131(100.00) (20.19)	57(100.00) (8.78)	39(100.00) (6.01)	52(100.00) (8.01)	64(100.00) (9.86)	649(100.00) (100.00)

Table - 5.3 : Expenditure Per Household And Per Capita of the Sample Households

Land Size Group (acres)	Expenditure per household			Expenditure per Capita		
	Alla-habad	Hamir-pur	Com-bined	Alla-habad	Hamir-pur	Com-bined
1. Landless	4255.97	3067.04	3691.99	870.30	620.11	750.92
2. Less than 2.5	3802.22	3847.71	3587.39	678.15	731.19	656.23
3. 2.5 - 5.00	6174.96	5666.83	5810.34	1062.67	923.20	961.06
4. 5.00 - 7.50	8467.16	6782.07	7166.40	1429.52	1021.96	1107.01
5. 7.50 - 10.00	6606.68	8658.03	8132.04	829.80	1255.42	1157.48
6. 10.00 - 15.00	12300.79	12676.33	12625.78	858.01	1629.82	1537.57
7. 15 +	14727.07	22537.23	20828.76	1792.80	2555.24	8545.13
Total	5493.20	8164.09	6598.33	949.44	1272.54	1154.92

Table - 5.4 : Savings by the Sample Households

Land Size Group (Acres)	Savings			Savings as percentage of total income		
	Alla-habad	Hamir-pur	Com-bined	Alla-habad	Hamir-pur	Com-bined
1. Landless	-2700.00 (-32.93)	-2063.00 (-27.88)	-4763.00 (-30.54)	-0.78	-0.92	-0.84
2. Less than 2.5	778.97 (8.76)	239.99 (3.94)	1018.96 (6.80)	0.23	0.11	0.18
3. 2.5 - 5.00	-2495.27 (-67.44)	906.57 (9.65)	-1588.70 (12.13)	-1.11	0.17	-0.21
4. 5.00 - 7.50	4990.25 (383.87)	5008.60 (113.84)	9998.85 (175.42)	4.34	1.65	2.39
5. 7.50 - 10.00	2735.31 (273.54)	10324.40 (356.02)	13059.71 (251.15)	3.98	3.95	3.96
6. 10.00-15.00	3537.55 (505.37)	3622.65 (80.51)	7160.20 (137.70)	3.95	0.64	1.08
7. 15 +	22296.60 (1592.62)	41800.05 (836.01)	64096.65 (1001.51)	9.76	3.58	4.59
Total	29143.41 (115.65)	59839.23 (150.73)	88982.64 (126.94)	2.07	2.70	1.89

N.B : Figures in brackets refer the savings per household

Table - 5.5 : Distribution of Indebted Households

(Households)

Land size group (acres)	Allahabad			Hamirpur			Combined		
	Productive use	Unproductive use	Total	Productive use	Unproductive use	Total	Productive use	Unproductive use	Total
1. Landless	6	39	45	2	35	37	8	74	82
	(13.33)	(86.67)	(100.00)	(5.40)	(94.60)	(100.00)	(9.75)	(90.25)	(100.00)
	(7.32)	(47.56)	(54.88)	(2.71)	(47.30)	(50.00)	(5.13)	(47.44)	(52.57)
2. Less than 2.5	9	23	32	7	17	24	16	40	56
	(28.13)	(71.88)	(100.00)	(29.16)	(70.84)	(100.00)	(28.57)	(71.43)	(100.00)
	(10.12)	(25.85)	(35.96)	(11.48)	(27.87)	(39.35)	(10.67)	(26.67)	(37.34)
3. 2.50 - 5.00	4	14	18	12	42	54	16	56	72
	(23.23)	(77.78)	(100.00)	(22.23)	(77.78)	(100.00)	(22.22)	(77.78)	(100.00)
	(10.81)	(37.84)	(48.65)	(12.77)	(44.68)	(57.45)	(12.22)	(42.75)	(54.97)
4. 5.00 - 7.50	5	2	7	9	9	18	14	11	25
	(71.42)	(28.58)	(100.00)	(50.00)	(50.00)	(100.00)	(56.00)	(44.00)	(100.00)
	(38.47)	(15.39)	(53.85)	(20.46)	(20.46)	(40.91)	(24.57)	(19.30)	(43.86)
5. 7.50 - 10.00	3	-	3	9	4	13	12	4	16
	(100.00)		(100.00)	(69.23)	(30.77)	(100.00)	(75.00)	(25.00)	(100.00)
	(30.00)		(30.00)	(31.04)	(13.80)	(44.83)	(30.77)	(10.26)	(41.03)
6. 10.00-15.00	4	1	5	10	6	16	14	7	21
	(80.00)	(20.00)	(100.00)	(62.50)	(37.50)	(100.00)	(66.66)	(33.34)	(100.00)
	(57.15)	(14.29)	(71.43)	(22.23)	(13.34)	(35.56)	(26.93)	(13.47)	(40.39)
7. 15 & above	3	1	4	18	2	20	21	3	24
	(75.00)	(25.00)	(100.00)	(90.00)	(10.00)	(100.00)	(87.50)	(12.50)	(100.00)
	(21.43)	(7.15)	(28.58)	(36.00)	(4.00)	(40.00)	(32.82)	(4.69)	(37.50)
Total	34	80	114	67	115	182	101	195	296
	(29.82)	(70.18)	(100.00)	(36.81)	(63.19)	(100.00)	(34.12)	(65.88)	(100.00)
	(13.50)	(31.75)	(45.24)	(16.88)	(28.97)	(45.85)	(14.41)	(27.82)	(42.23)

N.B. 1. The first row wise figures in brackets refer percentage of households using their loan for productive and unproductive purposes.

2. The second raw-wise figures in brackets refer percentage of indebted households to total households.

Table - 5.6 : Utilisation Pattern of Loan Amount

(Percentage)

Land size group	Allahabad			Hamirpur			Combined		
	Productive use	Unproductive use	Total	Productive use	Unproductive use	Total	Productive use	Unproductive use	Total
1. Landless	14.80	85.20	100.00	40.18	59.82	100.00	29.57	70.43	100.00
2. Leass than 2.5	32.80	67.20	100.00	24.04	75.96	100.00	30.25	69.75	100.00
3. 2.5 - 5.00	9.40	90.60	100.00	18.98	81.02	100.00	17.00	83.00	100.00
4. 5.00 - 7.50	85.50	14.50	100.00	83.35	16.65	100.00	83.73	16.27	100.00
5. 7.50 - 10.00	100.00	--	100.00	74.35	25.65	100.00	78.42	21.58	100.00
6. 10.00-15.00	45.65	54.35	100.00	74.83	25.17	100.00	69.87	30.13	100.00
7. 15 +	98.3	1.63	100.00	98.50	1.50	100.00	98.47	1.53	100.00
Total	53.90	46.10	100.00	75.25	24.75	100.00	69.78	30.22	100.00

CHAPTER VI

IMPACT OF DROUGHT AND DEVELOPMENT PROGRAMME

In drought-prone areas agriculture is a frequent victim of scanty but unpredictible rainfall in the absence of an adequately assured supply of water for irrigation. This causes great hardships to the village people in these areas. The life of village population becomes much more hardened at the time of drought occurrance. The people suffer from the want of food for subsistence and from the shortage of drinking water. Cattle suffer from the want of fodder and feeds, as a result of which some death tolls are also found among them. The conditions of those who own negligible land and material resources and primarily depend on wage employment, become much worse off due to lack of purchasing power. In fact, agriculture being the backbone of the village economy is adversely hit by the drought occurrence and so it hardens the rural life leading to a number of problems in such areas.

The purpose of this chapter is to discuss the impact of drought on crop production and livestock in the context of two drought-prone districts of Uttar Pradesh, i.e. Allahabad and Hamirpur. Various dimensions of drinking water problem are also discussed in the context of these two districts. The question of indebtedness and the impact of development programmes are also taken into consideration in the context of these two districts. All these issues are examined on the

basis of primary data collected from the sample villages belonging to these two districts of the state which are related to two periods, drought year of 1979 and normal year of 1981.

6.1 Drought and Cultivation

The farm households of drought-prone areas are generally not in position to bring all farm land under crop cultiation in a drought year. Such situation was found in Allahabad and Hamirpur in the drought year of 1979. About 90 per cent of the total area cultivated by the farm households in 1981 was brought under crop cultivation in the drought year of 1979 in these two districts taken together. The farm households belonging to Allahabad and Hamirpur cropped 88.44 per cent and 90.29 per cent of their total cultivated area of the normal year respectively. This means that they did not cultivate 10 per cent of the total cropped area of the normal year in both districts taken together; while in Allahabad and Hamirpur taken separately, they did not cultivate in about 12 per cent and 10 per cent of their respective total cropped area obtained in the normal year of 1981.

Table 6.1 also shows the same case in respect of all categories of farm households in these two districts taken together or separetely. The inter-farm household picture of the cultivated area in 1979 over 1981, however, shows that the households with smaller holding sizes had, by and large, less losses in cropped area than those with bigger holding sizes in both districts in the drought year - whether these districts are taken together or separately. However, the impact of

cropped area damage caused by the drought occurrence to the farm households with smaller holding sizes could hardly be compared with those with bigger holding sizes because of their relative differences in the capacity to bear the impact of drought.

The proportion of the cultiated area of the normal year cropped during the drought year simply shown that the farm households did not cultivate their all land and so a part of the land that could have been brought under crop cultivation was not cultivated during drought period. In this way, it measures loss in acreage cultivation due to the occurrence of drought. But how much of the area cultivated in the drought could not yield produce, remains unexplained.

Table 6.1 shows that about 30 per cent of the total area cultivated by the farm households belonging to these two districts combined together did not yield produce in the drought year. In Allahabad and Hamirpur, their respective farm households had about 25 per cent and 31 per cent of their total cultivated areas which could not yield produce. The proportion of the cultivated area yielding no produce, however, varied from one category of farm households to another. The same table indicates that the households operated some land and those with the holding size of upto 2.5 acres had about 35 per cent and 37 per cent of their respective cultivated areas which yielded no produce in these two districts taken together because of the drought occurrence in 1979. About 37 per cent of the total cultivated area belonging to the households with

holding size of 5 to 7.5 acres did not yield produce in these districts in the same year.

The farm households with other categories of holding size could not yield produce ranging from 28 per cent to 30 per cent of their total cultivated areas in these two districts taken together. An overall picture shows that the households with smaller holding sizes had more of their cultivated area yielding no produce than what was obtained in respect of those with bigger holding sizes in these two combined districts in the drought year.

The inter-farm household distribution of the cultivated area yielding no produce presents a some what different one from what is presented at the combined distirct level. The whole cultivated area of the households operating some land yielded no produce in Allahabad, while that of those in Hamirpur had no produce in 25 per cent of their total cultivated area in the drought year. The households with holding size of 2.5 to 5.0 acres had almost their cultivated land yielding no produce in Allahabad but in Hamirpur they had no produce in about 26 per cent of their total cultivated area in the same year. The households with holding size of upto 2.5 acres did not have produce in 97.39 per cent of their total cultivated area while those in Hamirpur could not have produce in about 54 per cent of their total cultivated area. The households falling in the rest categories of holding size could not yield produce in less than 90 per cent of their total cultivated areas in Allahabad, except in case of those with

holding size of 7.5 to 10.00 acres which did not get produce from 51 per cent of their total cultivated area. But this was not the case in Hamirpur, because proportion of the cultivated area yielding no produce at the inter-farm household level varied from 53.55 per cent in the category of upto 2.5 acres holding size to 24.81 per cent in the category of the biggest holding size. In this way, the households of different categories of holding size show much higher proportion of their cultivated area yielding no produce in Allahabad than those belonging to Hamirpur presents. Moreover, in Allahabad the farm households with smaller holding size had most of their cultivated area yielding no produce that those in Hamirpur presented. All this indicates how the occurrance of drought affects cultivation in the drought-prone areas.

6.2 Loss in Production

Agricultural production is adversely affected by drought in drought-prone areas in three ways: firstly, by making a part of cultivated area as follow; secondly, by making a part of the area cultivated during drought period as non-yielding; and thirdly, by reducing yield potential of the area under crops. As a result, both yield and production are drastically reduced at the time of drought in such areas. This leads to reduction in normal production. However, the impact of drought on production may not be the same at the inter-farm household level within and across the drought-prone districts.

Table : 6.2 shows that in Allahabad and Hamirpur, the farm households produced about 36 per cent and 37 per cent of their

total output of the normal year in the drought year respectively. The households belonging to these two districts taken together thus realised 36 per cent of what they produced in the normal year. In this way, 64 per cent of total agricultural production of the normal year was not produced due to drought in 1979. The proportion of total agricultural output in 1979 over 1981 across different holding size-groups varied from 26 per cent to 48 per cent in Allahabad; from 24 per cent to 42 per cent in Hamirpur, and from 30 per cent to 41 per cent in boith districts taken together.

6.3 Loss and Sale of Cattle

The losses in crop cultivation and production that occure in a drought year, reduce household income and cause fodder shortage in the drought-prone areas. As a result, two things happen there. Firstly, peasants, specially poor peasants and agricultural labourers, are compelled to sell their cattle for subsistence income; and secondly, some of the cattle also die due to the shortage of fodder and feeds. These could be observed in these two districts in the drought year.

Let us take the sale part of cattle by the farm households in these two districts during drought period. Table 6.3 shows that on an average, two cattle were sold by the farm households in the drought-prone districts of Allahabad, Hamirpur and both combined together exclusively due to drought. The value of cattle sale per household was Rs.1211.39 in Allahabad, Rs.961.29 in Hamirpur and Rs.1086.42 in both districts taken together. Among different categories of farm

households, the largest number of cattle per household (4.34) was sold by the households with the holding size of upto 2.5 acres in Allahabad; while in Hamirpur, the households in the category of 5.0 to 7.50 acres of holding size had the largest number of cattle sale per household. In this way, the number of cattle sale per household across different categories of holding size varied from 4.34 to 1 in Allahabad, from 4.00 to 1.34 in Hamirpur and from 3.04 to 1.28 in both districts taken together. Interestingly, the poor peasant and agricultural labour households sold a relatively large nummber of cattle but fetched small sum; while peasants with bigger holding size sold small number of cattle but fetched bigger sum in these drought-prone areas.

The households of the drought-prone districts were not only forced to dispose of some of their cattle on account of drought but some of their cattle due to the fodder shortage caused by the drought. Table 6.4 shows that approximately two cattle per household, worth of Rs.1206.59 in Allahabad, Rs.880 in Hamirpur and Rs.1095.45 in both districts taken together were lost in the drought year of 1979. The average number of cattle loss was more or less higher among the households with smaller holding size than among those with bigger holdling size in these districts, whether taken separately or together. Similarly, the average value of cattle loss was higher for the household with smaller holding size than for those with bigger holding size in both of the drought-prone districts.

The occurrence of drought in 1979 caused not only cattle loss and sale but also the sale of other assets in the drought-

prone districts of the state. The value of assets worth of Rs.1013 per household was sold in these two districts taken together. In Allahabad and Hamirpur separately, the farm households disposed of assets worth of Rs.649.41 and about Rs.1376 per household respectively in the drought year. The poor peasant (upto 2.5 acres of holding) and agricultural labour households suffered most in this regard, because being small assets-holding, they sold significantly higher value of assets per household than what the households with bigger holding size did in these districts in the drought year.

6.4 Indebtedness

The occurrence of drought traps the village people into the fold of indebtedness in drought-prone areas because of crop failure and decline in agricultural production and the loss and sale of cattle and other assets. In order to meet the basic socio-economic requirements, they are compelled to borrow money from different sources.

The village mahajans were the major source of borrowing in the drought-prone villages at the time of drought. Table 6.5 shows that the farm households belongling to Allahabad and Hamirpur borrowed about 68 per cent and 75 per cent of their total borrowed amount from the village Mahajans (i.e. money lenders) in the drought year. The households belonging to both districts taken together had 73 per cent of their total borrowings from the village money lenders. A major part of the total borrowings from them was taken at the exurberant interest rate of 24 per cent and above. The friends and relatives were

the second major source of borrowing. The households borrowed about 11 per cent, 21 per cent and 19 per cent of their total borrowed amount belonging to Allahabad, Hamirpur and both of them combined in the drought year. Not less than 79 per cent of the total amount borrowed from them was given to the farm households at the interest rate of 24 per cent and above. A quite meagre amount was borrowed by the households from cooperative societies in the drought-prone districts. The proportion of total amount borrowed by the farm households from the nationalised banks varied from 20 per cent in Allahabad to about 2 per cent in Hamirpur. In this way, it was only 6.43 per cent of the total amount borrowed from the banks in both districts taken together.

All this shows how the farm households were trapped into the exploitative fold of the village Mahajans who lent money to them at the exurberant rate of interest per annum in the drought year.

6.5 Sources of Drinking Water

Traditional wells are generally the major source of supply for drinking water in drought-prone districts. The other sources of drinking water supply are also found there such as lake/pond, canal, hand pump, etc. But they are not significant from the point of view of drinking water supply in these areas. Table 6.6 shows that 96.42 per cent of the total households in Allahabad district, 91.19 per cent of the households in Hamirpur district and 93.22 per cent of them in both the districts taken together depended on the wells for their

drinking water requirements. There were wells constructed by the rich households for their individual use but such individual wells are very uncommon in drought-prone districts and generally the wells are used on the community basis. The other sources of drinking water supply were the canal, pond/lake, collective tap and the individual tap. The proportion of households using taps either collective or individual constituted less than half per cent of the total households in both districts. The major constraint in providing portable water to the people of drought-prone districts was the high cost involved in digging wells or boring tubewells. Some of the households, poor and scheduled caste and tribe depended on lale/pond for their drinking water supply.

6.6 Access to Drinking Water

Most of the households depended on wells for their drinking water requirements. In every village, the number of wells were found according to the population size of the village. Generally the wells were constructed and used on the caste community basis. Therefore, each community possessed its own well located at the point of easy accessibility to the respective castes. The other sources of drinking water were either located at few points in the villages such as taps collective or outside the villages like river, canal and pond/lake etc. Thus the people had to move outside of their households also for fetching drinking water. Table 6.7 shows that 55.95 per cent of the total households in Allahabad

district, 47.35 per cent in Hamirpur district and 50.69 per cent in the total sample travelled less than half Km. to fetch drinking water. The households covering the distance of half Km. to one Km. constituted 24.21 per cent in Allahabad district, 23.43 per cent in Hamirpur district and 23.73 per cent in the aggregate sample. Even 8.94 per cent of the total households in Allahabad district, 5.54 per cent in Hamirpur district and 6.47 per cent in aggregate sample covered the distance of 1.5 Kms. to 2 Kms. and above to fetch drinking water. Thus drinking water, one of the basic needs of the human being. was not easily accessable to the people in the drought-prone districts of the state.

6.7 Involvement of Family Members in Fetching Water

The accessibility of the households to the drinking water sources was not in the drought-prone districts, as most of the households were depended on the conventional sources of drinking water, i.e., well. Wells were mostly located out of the houses. Therefore, some of the family members were involved in getting drinking water. Since the male members of the households were engaged in agriculture or in other activities, the main responsibility of arranging drinking water from the available sources fell on the females. Table 6.8 indicates that in the total population of all households, 85.35 per cent females in Allahabad district, 90.31 per cent females in Hamirpur district and 88.49 per cent females in the aggregate sample were responsible for arranging drinking water. The males bringing drinking water constituted 14.13 per cent of

the total population in Allahabad district, 7.11 per cent in Hamirpur district and 9.67 per cent in the aggregate sample. The children involvement was least. However, about 3 per cent of children to total population were fetching drinking water in Hamirpur district and the same was not significant in Allahabad.

6.8 Development Programmes and Beneficiaries

The drought occurence is a recurring kind of problem in the areas where the monsoon is erratic with scanty rains. In order to face and cope with this natural challenge, the government implemented various development programmes which included the provision of assets and skills, financial assistance and short-term employment opportunities. The sole objective behind the implementation of these programmes was that the village people, particularly the landless, marginal and small peasants who are most hit during the drought year, would be benefitted and their economic conditions could be elevated to face the adversaries of the drought. The data collected in this regard in the districts did not demonstrate promising situation. Out of the total sample households surveyed only 35.72 per cent in Allahabad, 49.39 per cent in Hamirpur district and thus 44.07 per cent in both of the districts were benefited from any of the twelve listed development programmes during the last ten years, ending 1982. Table 6.9 indicates that the proportions of the total number of households benefited from the programmes were about 36 per cent in Allahabad, 49 per cent in Hamirpur and 44 per cent in both

of the districts combined. Though these schemes did not provide any permanent asset or skill to fight the drought but served as a short term relief to the households during the drought year.

The programmes launched for the development of minor irrigation facilities benefited only 5.56 per cent of the total households in Allahabad dfistrict, 3.28 per cent in Hamirpur district and 4.16 per cent in both districts taken together. The scheme for agricultural deelopment in the form of loan for agricultural practices and agricultural inputs benefited to the negligible proportion of the total households to the extent of only 1.99 per cent in Allahabad district, 2.52 per cent in Hamirpur district and 2.33 per cent in both districts taken together. The scheme of dry land farming which is taken to be most suited for agriculture in the drought-prone areas received so little attention as only 0.26 per cent of the households in Hamirpur district and 0.16 per cent of the households in the total sample adopted this farming technique. Not a single household in Allahabad district reported to have been benefited from this programme. Similarly, the programme of animal husbandry which is one of the most recommended alternatives to provide income and employment other than cultivation remained neglected; as only 1.99 per cent households in Allahabad district, 3.53 per cent in Hamirpur district and 2.93 per cent in both of the district received benefit under the animal husbandry deelopment programme. Table 6.9 indicates that quite a negligible proportion of the total households were

benefited from the other development programmes in these districts.

The proportion of farm households benefited from different development programmes across different holding size-groups, as presented in Table 6.9, shows that the households with bigger holding size were benefited more from the development programmes than those with small holding size in the drought-prone districts of the state. For instance, agricultural households with some land, varying from about 26 per cent to 27 per cent of their total number received benefits from these programmes in the districts during the last decade, ending 1982. Similarly, the households with marginal and small size of land holdings, varying from 37 per cent to 40 per cent of their respective total number, were benefited from the development programmes in these districts during the last decade. But those with holding size of 7.50 to 10 acres and above, varying from 43 per cent to 78 per cent of their respective total number were benefited from the programmes in the drought-prone districts of the state. All this clearly indicates that the households with bigger holding size were more benefited than those with smaller holding size during the last decade ending 1982 in these districts.

6.9 Concluding Notes

Erratic behaviour of rains and lack of an assured supply of water for irrigation make fully agriculture nature-bound in drought-prone areas. Negligible rainfall or the shortfall in normal rainfall causes drought in such areas. As a result, the

losses in normal agricultural production that forms the main basis of rural life, create hardships in various forms or orders to the village people in these areas. Misery and sufferings of the people multiply. Cattle also loose life. The sale of cattle and other assets becomes common in the villages. The people have to put in their hard labour for arranging water for drinking. They are also trapped into the exploitative fold of indebtedness. All this requires development efforts to improve the socio-economic conditions of the agriciultural and poor peasant households in particular. But the development prog rammes launched by the Government donot benefit them all, particularly those who are economically poor in drought--prone areas. This is all that is evidenced from the foregoing discussion on the impact of the 1979 drought on the agricultural economy of the villages belonging to Allahabad and Hamirpur in Uttar Pradesh. It also presents the conditions in which water is procured for domestic consumption in these two districts.

Table - 6.1 : Cultivated Area During Normal And Drought Years By the sample Households : According to Farm Size Groups

Land size groups (acres)	Allahabad			Hamirpur			Combined		
	Total cultivated area		Cultivated area yielding no produce in drought year 1979	Total cultivated area		Cultivated area yielding no produce	Total cultivated area		Cultivated area yielding no produce
	Normal year 1981	Drought year 1979		Normal year 1981	Drought year 1979		Normal year 1981	Drought year 1979	
1. Landless	8.70 (100.00)	8.70 (100.00)	4.30 (49.43)	19.19 (100.00)	13.00 (67.75)	3.25 (25.00)	27.89 (100.00)	21.70 (77.84)	7.55 (34.80)
2. Less than 2.5	104.18 (100.00)	97.39 (93.49)	19.30 (19.82)	115.77 (100.00)	101.02 (87.26)	54.09 (53.55)	219.95 (100.00)	198.41 (90.21)	73.39 (36.99)
3. 2.50 - 5.00	86.43 (100.00)	86.38 (99.95)	21.72 (25.15)	334.58 (100.00)	310.80 (92.90)	79.90 (25.71)	421.01 (100.00)	397.18 (94.34)	101.62 (25.59)
4. 5.00 - 7.50	57.43 (100.00)	57.14 (99.50)	10.71 (18.75)	248.44 (100.00)	216.38 (87.10)	90.06 (41.63)	305.87 (100.00)	273.52 (89.43)	100.77 (36.85)
5. 7.50 - 10.00	123.79 (100.00)	63.26 (51.11)	14.50 (22.93)	237.45 (100.00)	213.37 (89.86)	66.19 (31.03)	361.24 (100.00)	276.63 (76.58)	80.69 (29.17)
6. 10.00 - 15.00	69.27 (100.00)	62.07 (89.61)	29.71 (47.87)	511.00 (100.00)	446.07 (87.30)	110.65 (24.81)	580.27 (100.00)	508.14 (87.57)	140.36 (27.63)
7. 15.00 & above	267.04 (100.00)	259.04 (97.01)	62.85 (24.27)	1217.80 (100.00)	1122.80 (92.20)	345.39 (30.77)	1484.84 (100.00)	1381.84 (93.07)	408.24 (29.55)
Total	716.84 (100.00)	633.98 (88.44)	163.09 (25.73)	2684.23 (100.00)	2423.44 (90.29)	749.53 (30.93)	3401.07 (100.00)	3057.42 (89.90)	912.62 (29.85)

N.B : (i) The second column-wise figures in brackets refer percentage to the first column.

(ii) The third column-wise figures in brackets refer percentage to the second column.

Table - 6.2 : Value of Agricultural Production During Normal And Drought Years : According to Farm Size Groups (Rs.)

Land size groups (acres)	Allahabad		Hamirpur		Combined	
	Value of production		Value of production		Value of production	
	Normal year	Drought year	Normal year	Drought year	Normal year	Drought year
1. Landless	10546.00 (100.00)	3010.00 (28.55)	5780.00 (100.00)	2000.00 (34.61)	16326.00 (100.00)	5010.00 (30.69)
2. Less than 2.50	133609.50 (100.00)	48968.00 (36.65)	65273.25 (100.00)	15460.00 (23.69)	198882.75 (100.00)	64428.00 (32.40)
3. 2.5 - 5.0	123693.90 (100.00)	59250.92 (47.91)	185060.50 (100.00)	67691.00 (36.58)	308754.40 (100.00)	126941.92 (41.12)
4. 5.00 - 7.50	851011.00 (100.00)	305221.00 (35.87)	153084.75 (100.00)	42279.00 (27.62)	1004095.75 (100.00)	357500.00 (34.61)
5. 7.50 - 10.00	64268.00 (100.00)	16100.00 (25.06)	165747.00 (100.00)	53933.00 (32.54)	230015.00 (100.00)	70033.00 (30.45)
6. 10.00-15.00	71849.50 (100.00)	18509.00 (25.76)	317265.00 (100.00)	109661.00 (34.57)	389114.50 (100.00)	128170.00 (32.94)
7. 15 & above	211627.94 (100.00)	72216.00 (34.13)	722417.00 (100.00)	305991.00 (42.36)	934044.94 (100.00)	378207.00 (40.50)
Total	1466605.84 (100.00)	523274.92 (35.68)	1614627.50 (100.00)	597015.00 (36.98)	3081233.34 (100.00)	1120289.92 (36.36)

N.B : Figures given in brackets refer percentage of drought year production to the normal year production.

Table - 6.3 : Average Number And Value of Cattles Sold By Households During the Drought Year: According to Farm Size Groups.

(Number/Rs.)

Land size groups (acres)	Allahabad		Hamirpur		Combined	
	Average number per household	Average value per household	Average number per household	Average value per household	Average number per household	Average value per household
1. Landless	1.33	753.34	1.75	800.00	1.68	778.69
2. Less than 2.5	4.34	500.00	1.34	1225.00	2.94	865.50
3. 2.5 - 5.00	1.00	500.00	2.63	668.34	1.78	583.17
4. 5.00 - 7.50	2.00	1500.00	4.00	968.75	3.06	1230.38
5. 7.50 - 10.00	1.00	1600.00	1.50	862.50	1.28	1203.25
6. 10.00-15.00	2.00	1802.20	2.67	1148.34	2.38	1476.27
7. 15 & above	2.86	1822.98	2.81	933.34	2.94	1398.20
Total	2.19	1211.39	2.23	961.29	2.26	1086.42

Table - 6.4 : Loss of Cattle and Sale of Other Assets During Drought Year: According to Farm Size Groups

Land size Groups (acres)	Loss of Cattle						Average sale of other assets		
	Allahabad		Hamirpur		Combined				
	Average Number	Average value	Average Number	Average value	Average Number	Average value	Allahabad	Hamirpur	Combined
1. Landless	3.00	676.79	2.67	933.34	2.85	804.66	578.30	648.29	609.98
2. Less than 2.5	4.00	3040.00	2.80	978.39	3.38	2012.20	629.78	794.45	713.11
3. 2.5 - 5.00	2.00	1565.00	1.34	1100.00	1.65	1339.50	800.06	3365.00	2082.51
4. 5.00 - 7.50	2.00	1550.00	--	--	2.00	1550.00	767.29	225.00	495.15
5. 7.50 - 10.00	1.00	800.38	1.50	912.50	1.30	857.45	758.28	884.37	820.32
6. 10 - 15.00	2.00	400.00	1.20	850.00	1.57	635.09	529.36	1800.00	1163.69
7. 15 & above	1.00	400.00	1.00	548.29	1.00	476.15	426.78	2000.00	1210.39
Total	2.16	1206.59	1.72	879.89	1.95	1095.45	649.41	1375.85	1012.60

Table - 6.5 : Proportion of Total Loans From Different Sources At Different Interest Rates By The Sample Households

(per cent)

Sources of Loan	Less than 6 per cent			6 - 14 per cent			14 - 20 per cent			24 per cent & above			Total		
	Alla-habad	Hamir-pur	Com-bined	Alla-habad	Hamir-pur	Com-bined	Alla-habad	Hamir-pur	Com-bined	Alla-habad	Hamir-pur	Com-bined	Alla-habad	Hamir-pur	Combi-ned
1. Village Mahajan	--	0.22	0.67	--	--	--	23.13	11.20	14.25	76.87	88.58	85.59	67.66	75.22	73.36
2. Bank	42.86	--	33.34	57.14	100.00	66.67	--	--	--	--	--	--	20.07	1.91	6.42
3. Co-operative Society	--	--	--	100.00	--	87.72	--	100.00	12.28	--	--	--	0.81	1.91	1.63
4. Friend and Relative	--	--	--	--	--	--	--	20.72	17.53	100.00	79.28	82.48	11.46	20.95	18.58
Total	7.15	0.18	2.04	9.53	3.47	5.09	17.57	12.63	13.95	65.75	83.74	78.94	100.00	100.00	100.00

Table - 6.6 : **Distribution of Households According to Different Sources of Drinking Water**

(Household)

Sources	Allahabad	Hamirpur	Combined
1. River	5 (1.98)	31 (7.81)	36 (5.55)
2. Canal	1 (0.40)	1 (0.25)	2 (0.31)
3. Well	243 (96.42)	362 (91.19)	605 (93.22)
4. Pond/Lake	1 (0.40)	2 (0.50)	3 (0.46)
5. Tap (collective)	1 (0.40)	1 (0.25)	2 (0.31)
6. Tap(Domestic)	1 (0.40)	-	1 (0.15)
Total	252 (100.00)	397 (100.00)	649 (100.00)

Table - 6.7 : **Spatial Distribution of Households with Different sources of Drinking Water : Farm Size-wise**

(Household)

Distance (Kms.)	Alla-habad	Hamir-pur	Com-bined
1. Less than 0.50 Kms.	141 (55.95)	188 (47.35)	329 (50.69)
2. 0.5 - 1.00	61 (24.21)	93 (23.43)	154 (23.73)
3. 1.00-1.50	30 (11.90)	94 (23.68)	124 (19.11)
4. 1.50-2.00	6 (2.38)	8 (2.02)	14 (2.16)
5. 2 Kms. and above	14 (5.56)	14 (3.52)	28 (4.31)
Total	252 (100.00)	397 (100.00)	649 (100.00)

Table - 6.8 : Sex-wise Distribution of Family Members in Fetching Drinking Water.

Person	Allahabad	Hamirpur	Combined
1. Males	206 (14.13)	181 (7.11)	387 (9.67)
2. Females	1244 (85.33)	2300 (90.31)	3544 (88.49)
3. Children	8 (0.54)	66 (2.60)	74 (1.85)
Total	1458 (100.00)	2547 (100.00)	4005 (100.00)

N.B. : **Figures in brackets refer to** percentage of total.

Table - 6.9 : Total Number of Households Benefited Under Different Development Programmes/Schemes

(Household)

	Programme/Scheme												
	House sites	Animal Husbandary	Soil Conservation	Dry Land Farming	Crop Loan	Revenue Suspension	Food for work programme	Minor Irrigation	Loan for other agricultural practices	Agricultural Input Distribution	Scheme for Rural Industry	Other sources	Total
1. Landless													
Allahabad	1 (1.22)	1 (1.22)	-	-	-	-	16 (19.52)	-	-	-	-	3 (3.66)	21 (25.61)
Hamirpur	5 (6.79)	2 (2.71)	-	-	-	-	12 (16.22)	-	-	-	-	1 (1.36)	20 (27.03)
Combined	6 (3.85)	3 (1.93)	-	-	-	-	28 (17.95)	-	-	-	-	4 (2.57)	41 (26.29)
2. Less than 2.5													
Allahabad	3 (3.37)	2 (2.25)	-	-	-	-	15 (16.86)	8 (8.99)	2 (2.25)	1 (1.13)	-	2 (2.25)	33 (37.08)
Hamirpur	4 (6.56)	1 (1.64)	4 (6.56)	-	-	3 (4.92)	9 (14.76)	-	2 (3.28)	-	-	1 (1.64)	24 (39.35)
Combined	7 (4.67)	3 (2.00)	4 (2.67)	-	-	3 (2.00)	24 (16.00)	8 (5.34)	4 (2.67)	1 (0.67)	-	3 (2.00)	57 (38.00)
3. 2.5 - 5.00													
Allahabad	1 (2.71)	1 (2.71)	-	-	3 (8.11)	1 (2.71)	4 (10.81)	5 (13.52)	-	-	-	-	15 (40.54)
Hamirpur	2 (2.13)	1 (1.07)	10 (10.64)	1 (1.07)	-	6 (6.39)	11 (11.71)	1 (1.07)	-	-	1 (1.07)	4 (4.26)	37 (39.37)
Combined	3 (2.29)	2 (1.53)	10 (7.64)	1 (0.77)	3 (2.29)	7 (5.35)	15 (11.45)	6 (4.58)	-	-	1 (0.77)	4 (3.06)	52 (39.70)

Contd..

(Table 6.9 Contd...)

	Programme/Scheme												
	House sites	Animal Husbandary	Soil Conservation	Dry Land Farming	Crop Loan	Revenue Suspension	Food for work programme	Minor Irrigation	Loan for other agricultural practices	Agricultural Input Distribution	Scheme for Rural Industry	Other sources	Total
4. 5.00-7.50													
Allahabad	-	1 (7.70)	-	-	-	2 (15.39)	-	1 (7.70)	1 (7.70)	-	-	-	5 (38.47)
Hamirpur	3 (6.82)	8 (18.19)	-	-	-	3 (6.82)	6 (13.64)	3 (6.82)	-	-	-	-	23 (52.28)
Combined	3 (5.27)	9 (15.79)	-	-	-	5 (8.78)	6 (10.53)	4 (7.02)	1 (1.76)	-	-	-	28 (49.13)
5. 7.50-10.00													
Allahabad	-	-	-	-	1 (10.00)	3 (30.00)	-	-	1 (10.00)	-	-	-	5 (50.00)
Hamirpur	2 (6.90)	-	11 (37.94)	-	1 (3.45)	5 (17.25)	-	5 (17.25)	1 (3.45)	-	-	-	25 (86.21)
Combined	2 (5.13)	-	11 (28.21)	-	2 (5.13)	8 (20.52)	-	5 (12.82)	2 (5.13)	-	-	-	30 (76.93)
6. 10.00-15.00													
Allahabad	-	-	-	-	1 (14.29)	4 (57.15)	-	-	-	-	-	-	5 (71.43)
Hamirpur	-	2 (4.45)	8 (17.78)	-	1 (2.23)	20 (44.45)	-	2 (4.45)	2 (4.45)	-	-	-	35 (77.78)
Combined	-	2 (3.85)	8 (15.39)	-	2 (3.85)	24 (46.16)	-	2 (3.85)	2 (3.85)	-	-	-	40 (76.93)

Contd...

(Table 6.9 Contd...)

	Programme/Scheme												
	House sites	Animal Husbandary	Soil Conservation	Dry Land Farming	Crop Loan	Revenue Suspension	Food for work programme	Minor Irrigation	Loan for other agricultural practices	Agricultural Input Distribution	Scheme for Rural Industry	Other sources	Total
7. 15.00 & above													
Allahabad	-	-	-	-	-	6 (42.86)	-	-	-	-	-	-	6 (42.86)
Hamirpur	-	-	6 (12.00)	-	-	18 (36.00)	4 (8.00)	2 (4.00)	1 (2.00)	5 (10.00)	1 (2.00)	-	37 (74.00)
Combined	-	-	6 (9.38)	-	-	24 (37.50)	4 (6.25)	2 (3.13)	1 (1.57)	5 (7.82)	1 (1.57)	-	43 (67.19)
8. Total													
Allahabad	5 (1.99)	5 (1.99)	-	-	5 (1.99)	16 (6.35)	35 (13.89)	14 (5.56)	4 (1.59)	1 (0.40)	-	5 (1.99)	90 (35.72)
Hamirpur	16 (4.03)	14 (3.53)	39 (9.83)	1 (0.26)	2 (0.52)	55 (13.86)	38 (9.58)	13 (3.28)	5 (1.26)	5 (1.26)	2 (0.51)	6 (1.52)	196 (49.37)
Combined	21 (3.24)	19 (2.93)	39 (6.01)	1 (0.16)	7 (1.08)	71 (10.94)	73 (11.25)	27 (4.16)	9 (1.39)	6 (0.93)	2 (0.31)	11 (1.70)	286 (44.07)

N.B. : Figures in brackets refer percentage of the total households in respective land size groups.

CHAPTER VII

CONCLUSIONS

The drought-prone area development programme was launched in India during 1974-75 with an objective to bring about improvement in the socio-economic lot of Landless Labour, marginal and small farmers. The emphasis was laid to secure optimum utilisation of land, water, livestock and manpower resources and restore proper ecological balance with a avowed objective of reducing the severity of drought.

Six districts vis. Allahabad, Mirzapur, Varanasi, Banda, Hamirpur and Jalaun were identified as the drought-prone districts of the state. In these districts, 40 blocks and 614 villages were selected for the implementation of the drought-prone areas development programme. Thus, nearby fifty percent of the total geographical area of identified drought-prone districts was covered uner the DPAP. With the identificvation of same more districts as drought-prone in 1980-81 and 1983-84, the coverage of the programme was extended to 63 blocks of 10 districts.

The main objective of the study was to analyse the existing socio-economic conditions of the people in drought-prone areas. It was expected that such study would provide not only baseline data and certain basic information about the people and area but a realistic basis for evaluating the impact

of various programmes and help and guidance in formulating sound development schemes of these areas. Allahabad and Hamirpur were the districts selected. In these two districts, 6 bloks, 18 villages and 659 households formed the coverage of the study. Thus, around 20 per cent of the total households of the drought-prone areas of U.P. were selected as sample to examine the existing socio-economic profiles. The major finds of the study were as under:

The socio-economic characteristics as revealed by the data pertaining to nine sample villages indicated that the people in these areas largely depended upon agriculture as a main source of livelihood and employment. Agriculture was primarily nature- bound and occurrence of drought was a recurring phenomenon. Hence agriculture was adversely affected and people had no alternative sources of income and employment. The drinking water sources were mainly traditional and natural such as well, tank and stream etc. The availability of drinking water from these sources was generally limited because of erratic and scanty rainfall in these villages. The infrastructural facilities were found to be quite underdeveloped.

The demographic and occupational structure of sample households showed that less than half of the peopulation were workers and more than half of the population were illiterates. Agriculture was the key source of employment as about 83 per cent and 62 per cent of the total workers were engaged in agriculture in Hamirpur and Allahabad districts respectively. Most of the agricultural workers got employment for upto 150

days only. Thus agriculture was overcrowded and could not provide substantial employment. The activities other than agriculture did not demonstrate encouraging employment opportunities. The migration was a phenomenon found in these villages and permanent migration was one of the important sources of income.

The agricultural economy of Allahabad and Hamirpur districts with an unequal distribution of land was found to be not only backward but subsisting in charater. Low crop yields and extent of irrigated area in the absence of some peremial source of irrigation were the basic characteristics of agricultural backwardness. The economy was subsisting in character because these two districts appeared to be food deficit and most of the farmers had to go for distress sale of wheat and paddy in order to meet their other essentials and obligations. In this respect, the marginal and small farm households were much worse off than those owned and cultivated large holdings.

The analysis of household information regarding income, expenditure and disabilities showed that there was positive relationlship between the income per household or per capita and size of land holdings. Most of the landless, marginal and small farmers had annual income upto Rs.4000/-. As a result, the proportion of total population below the poverty line was 68 per cent and 34 per cent in Allahabad and Hamirpur districts respectively. With this level of poverty, many of landless, marginal and small households had negative or negligible

saving-income ratio. Indebtedness was also found to be a serious problem as more than 45 per cent of the total households obtained loan in Allahabad and Hamirpur districts and that too mainly for unproductive purposes. The incidence of indebtedness combined with unproductive use of debt was quite high among the landless marginal and small households.

The erratic nature of rainfall and recurring phenomenon of drought affected cultivated area, yield production, livestock and drinking water. The analysis indicated that around 12 per cent and 10 per cent of the cultivated area of the normal year 1981 were lost during the drought year of 1979 in Allahabad and Hamirpur districts respectively. The households with smaller holdings had losses less than those with large holdings. Moreover 25 per cent and 30 per cent of the total cultivated area could not yield produce in Allahabad and Hamirpur districts respectively. In general, the households produced 36 per cent of wheat they produced in normal year. In this way, around 64 per cent of the total agricultural output could not be produed during drought of 1979. The sale of cattle and loss of cattle life were also noticeable feature of drought. It was found that cattle valued around one thousand were sold and two cattle per household amounting to Rs. one thousand died due to drought in 1979. The households were also forced to sell their assets. The sale of cattle and assets and loss of cattle life were found to be more among the households with smaller size of holdings. The occurrence of drought also trapped the people into the exploitative fold of indebtedness. It was noticed that the households of Allahabad and Hamirpur borrowed 68 per

cent and 75 per cent of their total borrowed amount from the village Mahajan at exubearant rate of interest. Drinking water was also scarcely available. About half of the total sample households had to travell 1/2 Kms. to more than 2 Kms. to get drinking water. The various development programmes launched to provide relief to the people of these areas benefited only 36 per cent of the households in Allahabad, 49 per cent of the households in Hamirpur and 44 per cent of the households in both districts combined. The important programme which benefited people in one form or other were the minor irrigation, loan for agricultural practice and inputs and animal husbandry. The scheme of dry and farming, the most suitable for drought-prone area development, did not receive as much attention as it was expected to have.

All this presents a case of such an agriculture-dominated economy in the drought-prone areas wherein the socio-economic lot of the people is tied up with nature in the condition of ecological degradation resulting from the people's pressure to harness limited supply of land and water for subsistence. Hence some appropriate strategy is required to develop the areas and people, so that the process of development could correspond to the ecological pattern of relations between man and nature on that given space.

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